

TECHNICAL MANUAL

**OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS
AND SPECIAL TOOLS LIST**

FOR

**POWER UNIT, DIESEL ENGINE DRIVEN, 1 TON TRAILER
MOUNTED, 5 kW, 50/60 Hz**

PU-797

(NSN: 6115-01-332-0741) (EIC: N/A)

**POWER UNIT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL
TRAILER MOUNTED, 5 kW, 50/60 Hz**

PU-797A

(NSN: 6115-01-413-3820) (EIC: N/A)

**POWER PLANT, DIESEL ENGINE DRIVEN, 1 TON TRAILER
MOUNTED, 5 kW, 50/60 Hz**

AN/MJQ-35

(NSN: 6115-01-313-4216) (EIC: N/A)

**POWER PLANT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL
TRAILER MOUNTED, 5 kW, 50/60 Hz**

AN/MJQ-35A

(NSN: 6115-01-414-9697) (EIC: N/A)

**POWER PLANT, DIESEL ENGINE DRIVEN, 1 1/2 TON
TRAILER MOUNTED, 5 kW, 50/60 Hz,**

AN/MJQ-36

(NSN: 6115-01-313-4215) (EIC: N/A)

**PU-797B G42238 6115-01-587-3875 M116 set up for TRC-190
PU-797C G42238 6115-01-587-3878 HMT Trailer set up for TRC-190**

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DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited.

**HEADQUARTERS, DEPARTMENT OF THE ARMY
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WARNING SUMMARY

GENERAL HAZARDOUS MATERIALS WARNINGS DESCRIPTION

Hazardous materials are not to be used by the operator in the operation and maintenance of the Power Plant/Power Unit.

Engine exhaust fumes contain deadly poisonous gases.

Severe exposure can cause death or permanent brain damage.

Exhaust gases are most dangerous in places with poor airflow. The best defense against exhaust gas poisoning is very good airflow.

To protect yourself and others, always obey the following rules:

- Do not run engine indoors unless you have very good airflow.
- Do not idle engine for a long time unless there is very good airflow.
- Be alert at all times. Check for smell of exhaust fumes.
- Reminder: The best defense against exhaust gas poisoning is very good airflow.
- Exhaust gas poisoning causes dizziness, headache, loss of muscle control, sleepiness, coma, and death. If anyone shows signs of exhaust gas poisoning, get all personnel clear of the Power Plant/Power Unit. Make sure they have lots of fresh air. Keep them warm, calm, and inactive. Get medical help. If anyone stops breathing give artificial respiration.

This warning summary contains general safety warnings and hazardous material warnings that must be understood and applied during operation and maintenance of the generator set. Failure to observe these precautions could result in serious injury or death to personnel.

Also included are explanations of safety and hazardous materials icons used within the Technical Manual (TM).

For First Aid Information, Refer To Field Manual (FM) 4-25.11. See Work Package (WP) 0109, References.

Prior to starting any WP procedure, the warnings included in the WP must be reviewed and understood.

Also review the Materials/Parts listed in the INITIAL SETUP of the WP for hazardous materials used during maintenance of the equipment. Then, refer to the detailed warnings for hazardous materials listed separately in this WARNING SUMMARY.

This manual describes physical and chemical processes that may require the use of chemicals, solvents, paints, or other commercially available material. Users of the manual should obtain the Material Safety Data Sheets (MSDS) (Occupational Safety and Health Act (OSHA) Form 20 or equivalent) from the manufacturers or suppliers of materials to be used. Users must be completely familiar with manufacturer/supplier information and adhere to their procedures, recommendations, warnings, and cautions for safe use handling, storage, and disposal of these materials.

WARNING SUMMARY - Continued

FIRST AID

For First Aid information, refer to FM 4-25.11.



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5 SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK:

1

DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL.

2

IF POSSIBLE, TURN OFF THE ELECTRICAL POWER.

3

IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH OR LIFT THE PERSON TO SAFETY USING A DRY WOODEN POLE OR A DRY ROPE OR SOME OTHER INSULATING MATERIAL.

4

SEND FOR HELP AS SOON AS POSSIBLE.

5

AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION.

WARNING SUMMARY - Continued

WARNING ICONS



EAR PROTECTION - Headphones over ears shows that noise level will harm ears.



ELECTRICAL - Electrical wire to arm with electricity symbol running through human body shows that shock hazard is present.



ELECTRICAL - Electrical wire to hand with electricity symbol running through hand shows that shock hazard is present.



HEAVY OBJECT - Human figure stooping over heavy object shows physical injury potential from improper lifting technique.



HOT AREA - Hand over object radiating heat shows that part is hot and can burn.



MOVING PARTS - Human figure with an arm caught between gears shows that the moving parts of the equipment present a danger to life or limb.



MOVING PARTS - Hand with fingers caught between gears shows that the moving parts of the equipment present a danger to life or limb.

WARNING SUMMARY - Continued

WARNING DESCRIPTIONS

WARNING

Operation and maintenance of the Power Plant/Power Unit contains many possibilities for injury or death to personnel. Be sure to be familiar with general first aid procedures as referenced in FM 425.11, First Aid (WP 0109, References). Failure to comply may cause injury or death to personnel.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Shut down generator sets before performing inspection of load cables. Failure to comply may cause injury or death to personnel by electrocution.

WARNING

Shut down generator sets before performing inspection of wiring. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Do not contact output cables when operating this generator set. Failure to comply may cause injury or death to personnel.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

WARNING SUMMARY - Continued

WARNING

Generator set operator is permitted to make connections to out terminal board only. Connections to load distribution points or to equipment beyond the output terminal board shall only be made by properly trained and authorized personnel. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Fuel is combustible and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change soaked clothing promptly if exposed to fuel. Failure to comply may cause injury or death to personnel.

WARNING

Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment.

WARNING

Fuels used in the generator set are combustible. Ensure fuel source grounding strap is connected to unit fuel fill grounding stud. When filling the fuel tank maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate Electrostatic Discharge (**ESD**). Failure to comply may cause injury or death to personnel.

WARNING

Hot engine surfaces from engine and generator circuitry are possible sources of ignition. When refueling during unit operation with Diesel Fuel (DF)-1, DF-2, Jet Propulsion Fuel (JP) 5, or JP8, avoid fuel splash and fuel spill. Do not smoke or use open flame when performing refueling. Remember Preventive Maintenance Checks and Services (PMCS) are still required. Flames and possible explosion may result. Failure to comply may cause injury or death to personnel.

WARNING

Cooling system operates at high temperature and pressure. Contact with high-pressure steam and/or liquids can cause burns and scalding. Shut down generator set and allow system to cool before performing checks, services, and maintenance. Wear gloves, additional protective clothing, and goggles as required. Contact with high-pressure steam and/or liquids can cause burns and scalding. Failure to comply may cause injury or death to personnel.

WARNING

In extremely cold weather, skin can stick to metal. Avoid contacting metal items with bare skin in extremely cold weather. Failure to comply may cause injury or death to personnel.

WARNING

Operating generator set with unit doors open or panels removed exposes personnel to a high noise level. Close unit doors and replace panels or wear hearing protection while operating or working near a running generator set. Failure to comply may cause injury.

WARNING SUMMARY - Continued

WARNING

Exhaust discharge contains deadly gases, including carbon monoxide. Do not operate generator set in an enclosed area unless exhaust discharge is properly vented. Failure to comply may cause injury or death to personnel.

WARNING

Hot exhaust gases can ignite combustible materials. Allow room for safe discharge of hot gases. Failure to comply may cause injury or death to personnel.

WARNING

Top housing panels can get very hot. Allow panels to cool down before performing maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel.

WARNING

When running, generator set engine has hot metal surfaces that will burn flesh on contact. Shut down generator set and allow generator to cool before checks, services, and maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel.

WARNING

Batteries give off combustible gas. Do not smoke or use open flame when performing maintenance. Failure to comply may cause injury or death to personnel and damage to equipment.

WARNING

Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on the batteries. Failure to comply may cause injury or death to personnel.

WARNING

Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg are lowered. Failure to comply with this warning can cause personal injury or death from trailer tipping or rolling, and equipment damage.

WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in severe personal injury and damage to equipment.

WARNING

Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set, trailer front landing leg/support leg is lowered, and leveling-support jack is lowered. Failure to comply with this warning can cause personal injury or death to personnel from trailer suddenly rolling or tipping.

WARNING

Steel strapping used in packaging of the power plant/power unit has sharp edges. Wear gloves and use care when cutting and handling steel strapping. Failure to comply with this warning can cause personal injury.

WARNING SUMMARY - Continued

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1,750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

WARNING

Impact disk must be tightened to end of threads on rod. Also, lock washer and nut must be tightened firmly against impact disk. Failure to comply with this warning can result in severe personal injury and/or damage to the equipment.

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand(s). Failure to comply with this warning can cause severe personal injury or death.

WARNING

Do not attempt to seat a lockring when tire is inflated. Improperly seated lockring could fly off. Failure to comply can cause severe personal injury to personnel.

WARNING

Solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to comply with this warning can cause severe personal injury and/or damage to equipment.

WARNING

When running, generator set engine has hot metal surfaces that will burn flesh on contact. Shut down generator set and allow generator to cool before checks, services, and maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel.

WARNING

When operating, muffler has hot metal surfaces that will burn flesh on contact. Shut down generator set and allow (specific component) to cool before performing maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel.

HAZARDOUS MATERIALS WARNINGS



BIOLOGICAL - Abstract symbol bug shows that a material may contain bacteria or viruses that present a danger to life or health.



CHEMICAL - Drops of liquid on hand shows that the material will cause burns or irritation to human skin or tissue.



CRYOGENIC - Hand in block of ice shows that the material is extremely cold and can injure human skin or tissue.

WARNING SUMMARY - Continued



EXPLOSION - Rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition or high pressure.



EYE PROTECTION - Person with goggles shows that the material will injure the eyes.



FIRE - Flame shows that a material may ignite and cause burns.



POISON - Skull and crossbones shows that a material is poisonous or is a danger to life.



RADIATION - Three circular wedges shows that the material emits radioactive energy and can injure human tissue.



VAPOR - Human figure in a cloud shows that material vapors present a danger to life or health.

LIST OF EFFECTIVE PAGES / WORK PACKAGES

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**HEADQUARTERS,
DEPARTMENTS OF THE ARMY
WASHINGTON, D.C., 30 JANUARY 2010**

TECHNICAL MANUAL

**OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST
FOR**

**POWER UNIT, DIESEL ENGINE DRIVEN, 1 TON TRAILER MOUNTED,
5 kW, 50/60 Hz, PU-797
(NSN: 6115-01-332-0741) (EIC:N/A)**

**POWER UNIT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL TRAILER MOUNTED,
5 kW, 50/60 Hz, PU-797A
(NSN: 6115-01-413-3820) (EIC:N/A)**

**POWER PLANT, DIESEL ENGINE DRIVEN, 1 TON TRAILER MOUNTED,
5 kW, 50/60 Hz, AN/MJQ-35
(NSN: 6115-01-313-4216) (EIC:N/A)**

**POWER PLANT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL TRAILER MOUNTED,
5 kW, 50/60 Hz, AN/MJQ-35A
(NSN: 6115-01-414-9697) (EIC:N/A)**

**POWER PLANT, DIESEL ENGINE DRIVEN, 1 1/2 TON TRAILER MOUNTED,
5 kW, 50/60 Hz, AN/MJQ-36
(NSN: 6115-01-313-4215) (EIC:N/A)**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Reports, as applicable by the requiring Service, should be submitted as follows:

(A) Army - Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) located in the back of this manual, directly to: Commander, U.S. Army CECOM Life Cycle Management Command (LCMC) and Fort Monmouth, ATTN: AMSEL-LCL-ECM, Fort Monmouth, NJ 07703-5006. You may also send in your recommended changes via electronic mail or by fax. Our fax number is 732-532-1556, DSN 992-1556. Our e-mail address is MONM-AMSELLEOPUBSCHG@conus.army.mil. Our online web address for entering and submitting DA Form 2028s is <http://edm.monmouth.army.mil/pubs/2028.html>.

A reply will be furnished to you.

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How to Use This Manual

DESCRIPTION OF THE MANUAL

Manual Organization

This manual contains operator and maintenance instructions for the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36.

This manual provides operating procedures, troubleshooting, maintenance, and supporting information required to operate and maintain the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36. Listed below are some of the features included in this TM to help locate and use the provided information.

Work Packages

This TM has been organized using the WP concept. Each chapter contains a series of WPs rather than sections and paragraphs. Each WP is designed to stand alone as a complete information module; if the user keeps the section(s) of this TM in a loose-leaf binder, the user will be able to remove just the WP needed to complete a specific task. Here are some WP features of which the user should be aware.

Each WP is numbered using a four-digit number beginning with WP 0001. WPs are numbered sequentially throughout the TM (ex. WP 0016. WP 0020. etc.). The Table of Contents lists each chapter and WP title as well as all figures and tables contained within each. Figures and tables are numbered sequentially for each WP.

The WP number is located at the top right of each page. It is also located at the bottom of the page with the WP page number included (0001-1 would be page 1 of the General Information WP (WP 0001, General Information)).

Each WP starts on a right-hand page. This is done so the user can remove a single WP from the paper TM if needed for a task. Blank pages are assigned a number, but it appears on the preceding or following page. For example, if page 0001-10 of a WP is blank, page 0001-9 will have the number 0001-9/10 blank; or if page 0001-1 of a WP is blank, page 0001-2 will have the number 0001-1 blank/2.

Each WP containing step-by-step maintenance or troubleshooting procedures will end with the words END OF TASK, and each WP ends with the statement END OF WORK PACKAGE. Think of each WP as a small, standalone TM.

Typographical conventions are as follows:

[Unload] indicates a soft key or a switch.

[Previous] + [Next] indicates two simultaneous key presses. [+] [-] indicates two sequential key presses.

References to equipment Data and Description Plates (WP 0005, Operation Under Usual Conditions) are printed as they appear on the equipment whenever possible.

Warnings, Cautions and Notes Definitions

Warnings, cautions, notes, chapter titles, and paragraph headings are printed in bold type. Icons related to warnings are shown directly above the warning text.

The following definitions apply to WARNINGS, CAUTIONS and NOTES found throughout this publication. Warning, cautions and notes provide supplemental information. Personnel must understand and apply these Warnings, Cautions and Notes during many phases of operation and maintenance to ensure personnel safety and health and the protection of property. Portions of this information may be repeated in certain chapters of this publication for emphasis.

WARNING

A warning identifies a clear danger to the person doing that procedure.

CAUTION

A caution identifies risk of damage to the equipment.

NOTE

A note highlights essential procedures, conditions, or statements or conveys important instructional data to the user.

CHAPTER OVERVIEW

Chapter 1 - General Information, Equipment Description and Theory of Operation

Chapter 1 provides an introduction to the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36. It is divided into three work packages (WP), as follows:

General Information

This work package provides general information about this manual and the related forms and records. Instructions are provided for making equipment improvement recommendations. Coverage includes a reference to the TM that contains instructions on destruction of materiel to prevent enemy use. Also, a list of abbreviations and a nomenclature cross-reference list are provided. Repair Parts; Special Tools; Test, Measurement, and Diagnostic Equipment (TMDE); and Support Equipment (which lists references that contain the required information) are also included at the end of this work package.

Equipment Description and Data

This work package describes power unit and power plant capabilities, characteristics, and features. It provides basic equipment data and shows the locations of major power unit and power plant components. Descriptions of the major components are also provided.

Theory of Operation

This work package provides functional descriptions of the power units and power plants.

Chapter 2 - Operator Instructions

Chapter 2 provides instructions for operating the power units and power plants. The chapter is divided into three work packages, as follows:

Description and Use of Operator Controls and Indicators

This work package provides references to the applicable generator set technical manuals and trailer technical manuals. Those references contain information on operator's controls and indicators for the generator sets and trailers. Detailed coverage is provided for the power plant switch box controls and indicators.

Operation Under Usual Conditions

This work package contains instructions for preparing the power units and power plants for use and operating them under normal conditions. Coverage includes instructions for connecting power plant load to the switch box and operating the switch box. Instructions for connecting power unit load to the generator set are also covered. This section also covers preparation of the power unit or power plant for movement to a new work site.

Operation Under Unusual Conditions

This work package provides references to the applicable generator set and trailer technical manuals.

Chapter 3 - Operator Troubleshooting Procedures

Chapter 3 covers troubleshooting procedures of the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36 to be performed by the operator. The chapter is divided as follows:

Operator Troubleshooting Index

This work package provides a troubleshooting introduction and malfunction/symptom index to direct you to the appropriate troubleshooting procedure at the operator level.

Operator Troubleshooting Procedures

This work package provides troubleshooting procedures and corrective actions that are to be performed by the operator. It also provides references to the applicable technical manuals.

Chapter 4 - Operator Maintenance Instructions

Chapter 4 covers maintenance procedures for the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36 to be performed by the operator. Its purpose is to provide you with the information that you need to keep the equipment in good operating condition. The chapter is divided as follows:

Preventive Maintenance Checks and Services (PMCS) Introduction

This work package provides a detailed explanation of each table entry in the PMCS table along with applicable warnings, cautions and notes prior to starting on the PMCS procedures.

Preventive Maintenance Checks and Services (PMCS)

This work package contains detailed instructions that the operator must perform before, during, and after preventive maintenance checks and services. Coverage includes all operator PMCS for the equipment.

Operator Lubrication Instructions

This work package provides references to the applicable lubrication instructions.

Maintenance Procedures

These work packages refer the operator to the preventive maintenance checks and services required by WP 0010.

Chapter 5 - Field Troubleshooting Procedures

Field Troubleshooting Index

This work package provides a troubleshooting introduction and malfunction/symptom index to direct you to the appropriate troubleshooting procedure at the field maintenance level.

Field Troubleshooting

This work package covers troubleshooting procedures and corrective actions that are to be performed at the field maintenance level.

Chapter 6 - Field Maintenance

Chapter 6 provides instructions covering the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36 maintenance that must be performed at service level. The chapter is divided as follows:

Service Upon Receipt

This work package contains instructions for inspecting and servicing the equipment when it is received. It includes instructions for unpacking the equipment when it is received. The instructions also include unpacking and stowing the basic issue items that accompany the 5 kW Power Units PU-797, PU-797A and Power Plants AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36. Also included are instructions on positioning the equipment for operation and connecting an external fuel source.

Preventive Maintenance Checks and Services (PMCS) Introduction

This work package provides a detailed explanation of each table entry in the PMCS table along with applicable warnings, cautions and notes prior to starting on the PMCS procedures.

Preventive Maintenance Checks and Services (PMCS)

This work package contains instructions covering the PMCS that must be performed at the unit maintenance level. A table provides information on maintenance intervals and actions required.

Field Lubrication Instructions

This work package lists the applicable references that contain lubrication instructions for your equipment.

Field Maintenance Procedures

These work packages list the applicable references that cover service maintenance of the equipment.

Preparation for Storage or Shipment

This work package provides information on short-term, intermediate-term, and long-term storage as well as on shipment.

Illustrated List of Manufactured Items

These work packages provide instructions for making the items authorized to be manufactured or fabricated at the field maintenance level.

Torque Limits

This work package lists standard torque values for bolts and screws used in the power units and power plants.

Chapter 7 - Parts Information

This chapter contains Repair Parts and Special Tools Lists (RPSTL) needed to perform operator, service, and field maintenance of the equipment. The chapter is divided as follows:

Repair Parts and Special Tools List (RPSTL) Introduction

This work package explains what is covered in repair parts list.

Repair Parts Lists

These work packages contain illustrations and lists. The illustrations aid in identifying the parts. The lists include information that tells which maintenance levels are authorized to use the part, the part number that identifies the part, the name of the part, and the quantity used.

Special Tools List

This work package informs the user that no special tools are needed.

National Stock Number (NSN) Index

This work package lists all of the parts contained in Repair Parts Lists. The NSN index is in National Item Identification Number (NIIN) sequence.

Part Number Index

These work packages lists all of the parts contained in Repair Parts Lists. The part number index is in alphanumeric part number sequence.

Chapter 8 - Supporting Information

The chapter is divided as follows:

References

This work package lists all publications referenced in the various chapters of the technical manual. The listing includes the title and document number of each publication.

Maintenance Allocation Chart (MAC) Introduction

This work package explains what is covered in the maintenance allocation chart.

Maintenance Allocation Chart (MAC)

This work package has three sections, as follows:

Maintenance Allocation Chart (MAC). Table 1 contains a tabular listing that assigns maintenance functions to specific maintenance levels. It lists the work time needed to perform each maintenance function at the assigned level. It also contains a column that has entries keyed to the tools and equipment listed in Table 2. Another column has entries keyed to the remarks in Table 3.

Tool and Test Equipment Requirements. Table 2 contains complete identification information for the items referenced in the tools and equipment column of Table 1.

Remarks. Table 3 provides additional information for each entry in the remarks column of Table 2.

Components of End Item (COEI) and Basic Issue Items (BII) Lists

This work package lists the items usually packaged separately but needed for installation and operation of the equipment. The work package has three sections, as follows:

Introduction. This section explains the entries in Tables 1 and 2.

Components of End Item. The equipment is normally shipped fully assembled, so this section is not applicable.

Basic Issue Items. This section contains a list of the accessories needed for installation and operation of the equipment.

Additional Authorization List (AAL)

This work package lists additional items you are authorized for support of the equipment. This work package contains two sections, as follows:

Introduction. This section explains the entries in Table 1.

Additional Authorized Items List. This table lists the Additional Authorized Items.

Expendable Supplies and Durable Items List

This work package lists expendable/durable supplies and materials needed to operate and maintain your equipment. The work package contains two sections, as follows:

Introduction. This section explains the entries in Table 1.

Expendable and Durable Items List. The list indicates the maintenance level that needs each item and identifies the items by National Stock Number (NSN), description, and unit of measure.

Mandatory Replacement Parts List

This work package lists all parts used on the equipment that must be discarded when removed during maintenance and installed new.

Index

An alphabetical index at the back of this technical manual provides a listing of subjects covered, cross-referenced to the applicable work package.

HOW TO FIX AN EQUIPMENT MALFUNCTION

Determining the Cause

Finding the cause of a malfunction, troubleshooting, is the first step in fixing your equipment and returning it to operation. Follow these simple steps to determine the root of the problem:

1. Turn to the Table of Contents in this manual.
2. Locate "Troubleshooting" under the chapter that covers your level of maintenance. Turn to the page indicated.
3. For operator troubleshooting, follow the instructions in the references listed in Chapter 3.
4. For troubleshooting at the field level, find the malfunction listing in the troubleshooting symptom index Chapter 5. Follow the instructions provided as indicated by the symptom index.

PREPARING FOR A TASK

Be sure that you understand the entire maintenance procedure before beginning any maintenance task. Make sure that all parts, materials, and tools are handy. Read all steps before beginning. Prepare to do the task as follows:

1. Carefully read the entire task before starting. It tells you what you will need and what you have to know to start the task. **DO NOT START THE TASK UNTIL:**
 - a. You know what is needed.
 - b. You have everything you need
 - c. You understand what to do
2. If parts are listed, they can be drawn from technical supply. Before you start the task, check to make sure you can get the needed parts. National stock numbers (NSNs) and part numbers for equipment parts are listed in the Repair Parts and Special Tools List (RPSTL) in Chapter 7.
3. If expendable/durable supplies or materials are needed, get them before starting the task. Refer to WP 0114 for the correct nomenclature and NSN.

HOW TO DO THE TASK

Before starting, read the entire task. Be sure that you understand the entire procedure before you begin the task. As you read, remember the following:

1. **PAY ATTENTION TO WARNINGS, CAUTIONS, AND NOTES.**
2. Use the List of Abbreviations/Acronyms if you do not understand the special abbreviations or unusual terms used in this manual.

3. The following are standard maintenance practices. Instructions about these practices are usually not included in task steps. When standard maintenance practices do not apply, the task steps will tell you. The standard maintenance practices are:
 - a. Tag electrical wiring before disconnecting it.
 - b. Discard used preformed packing, retainers, gaskets, cotter pins, lock washers, and similar items. Install new parts to replace the discarded items.
 - c. Coat packing before installation, in accordance with the task instructions.
 - d. Disassembly procedures describe the disassembly needed for total authorized repair. You may not need to disassemble an item as far as described in the task. Follow the disassembly steps only as far as needed to repair/replace worn or damaged parts.
 - e. Clean the assembly, subassembly, or part before inspecting it.
 - f. Before installing components having mating surfaces, inspect the mating surfaces to make sure they are in serviceable condition.
 - g. Hold the bolt (or screw) head with a wrench (or screwdriver) while tightening or loosening a nut on the bolt (or screw).
 - h. Torque to the special torque cited when the task instructions include the words "torque to." Use standard torque at all other times.
 - i. When a cotter pin is required, align the cotter pin holes within the allowable torque range.
 - j. Inspect for foreign objects after performing maintenance.

CHAPTER 1

**OPERATOR AND FIELD GENERAL INFORMATION,
EQUIPMENT DESCRIPTION AND THEORY OF
OPERATION**

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 1

GENERAL INFORMATION, EQUIPMENT DESCRIPTION AND THEORY OF OPERATION

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
General Information.....	0001
Equipment Description and Data.....	0002
Theory of Operation.....	0003

OPERATOR AND FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****GENERAL INFORMATION**

SCOPE

This manual is for your use in operating and maintaining the Power Plant, AN/MJQ-35 (Figure 1); Power Plant, AN/MJQ-36 (Figure 2); Power Plant, AN/MJQ-35A (Figure 3); Power Unit, PU-797A (Figure 4); and Power Unit, PU-797 (Figure 5). The manual covers operating instructions and operator and field maintenance requirements for the power plants and power units. It also contains a Repair Parts and Special Tools List (RPSTL) for the power plants and power units. The power plants and power units are mobile. The power plants and power units may be used to supply electric power to any system or equipment requiring up to 5 kW of 60 Hz power.

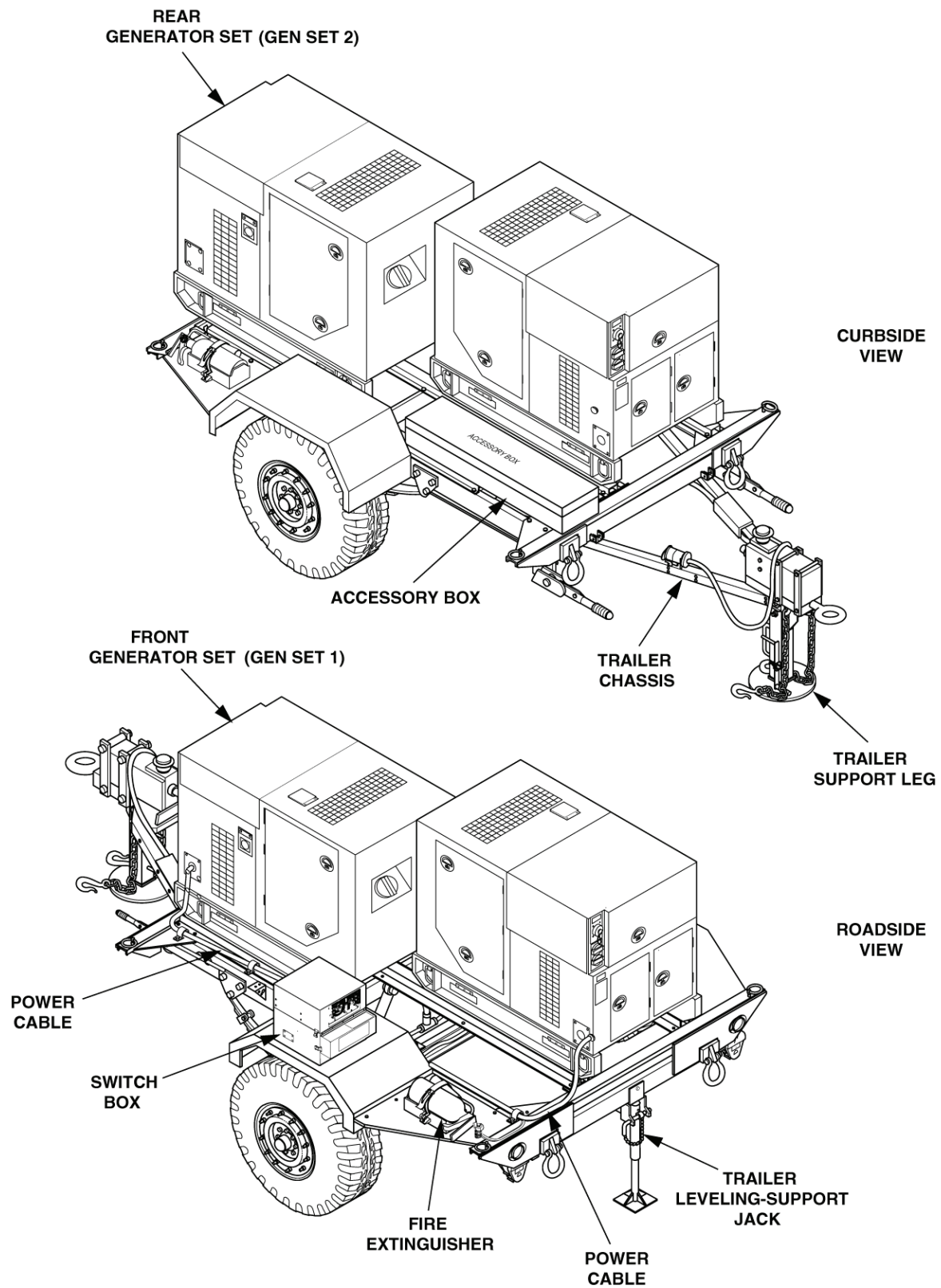


Figure 1. Features of AN/MJQ-35.

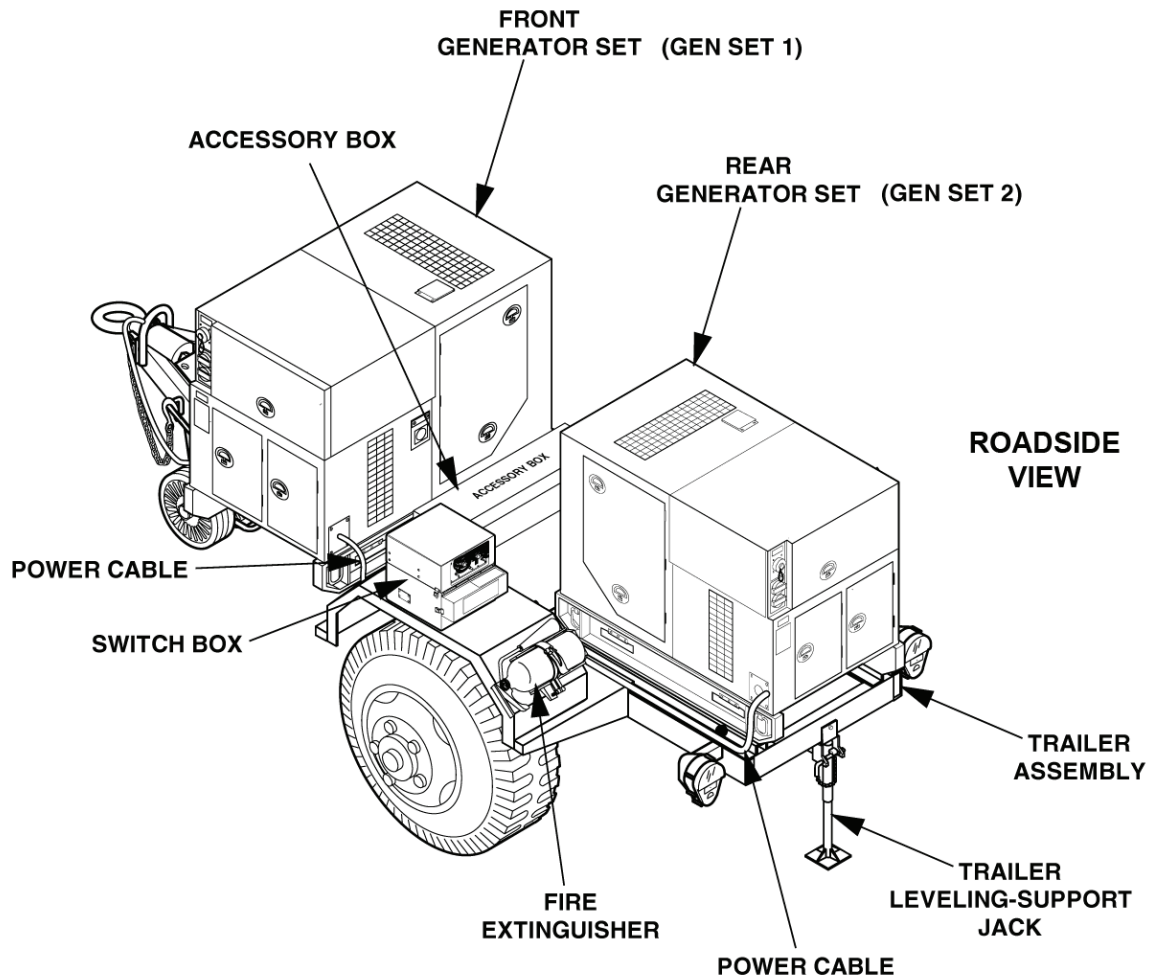


Figure 2. Features of AN/MJQ-36.

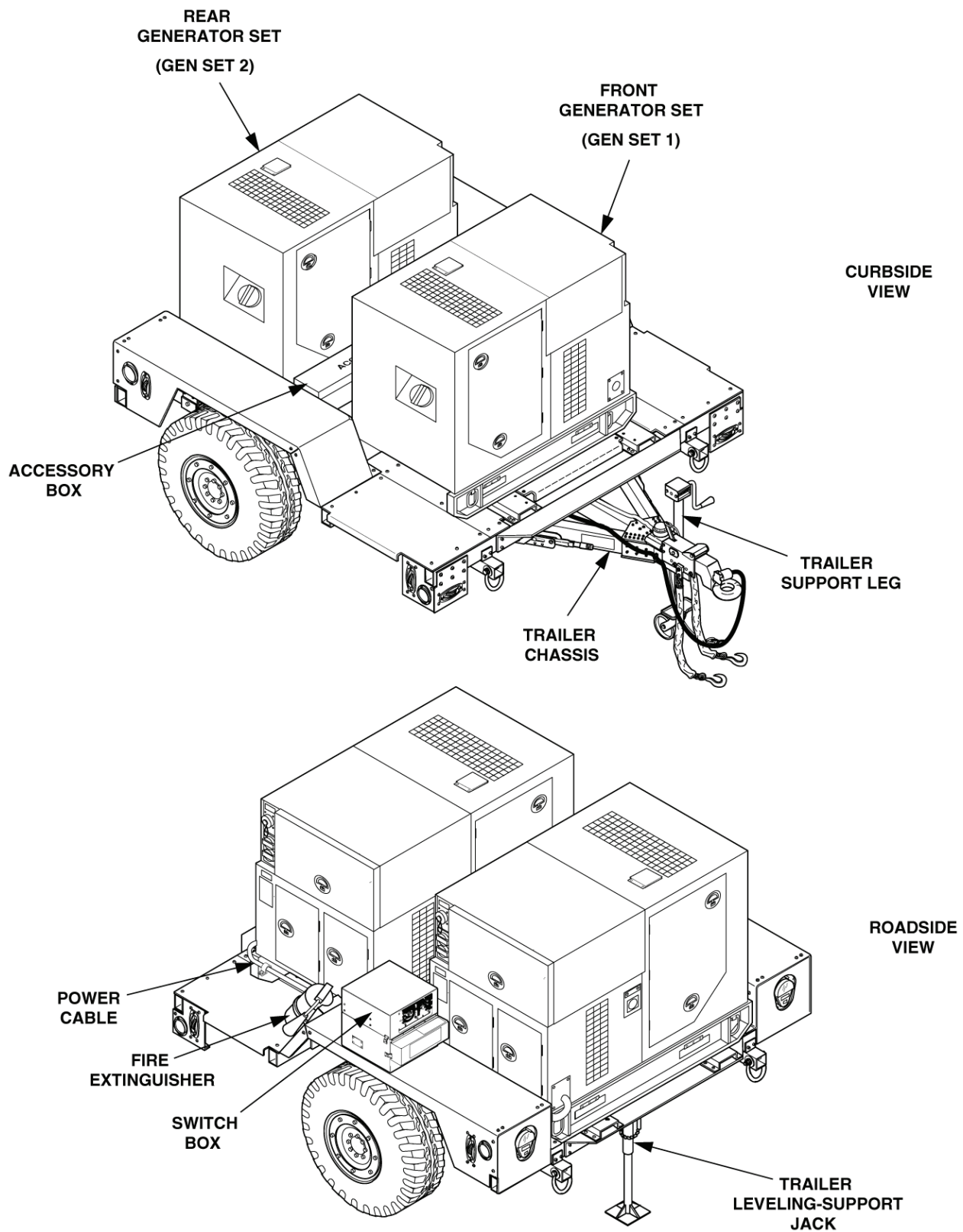


Figure 3. Features of AN/MJQ-35A.

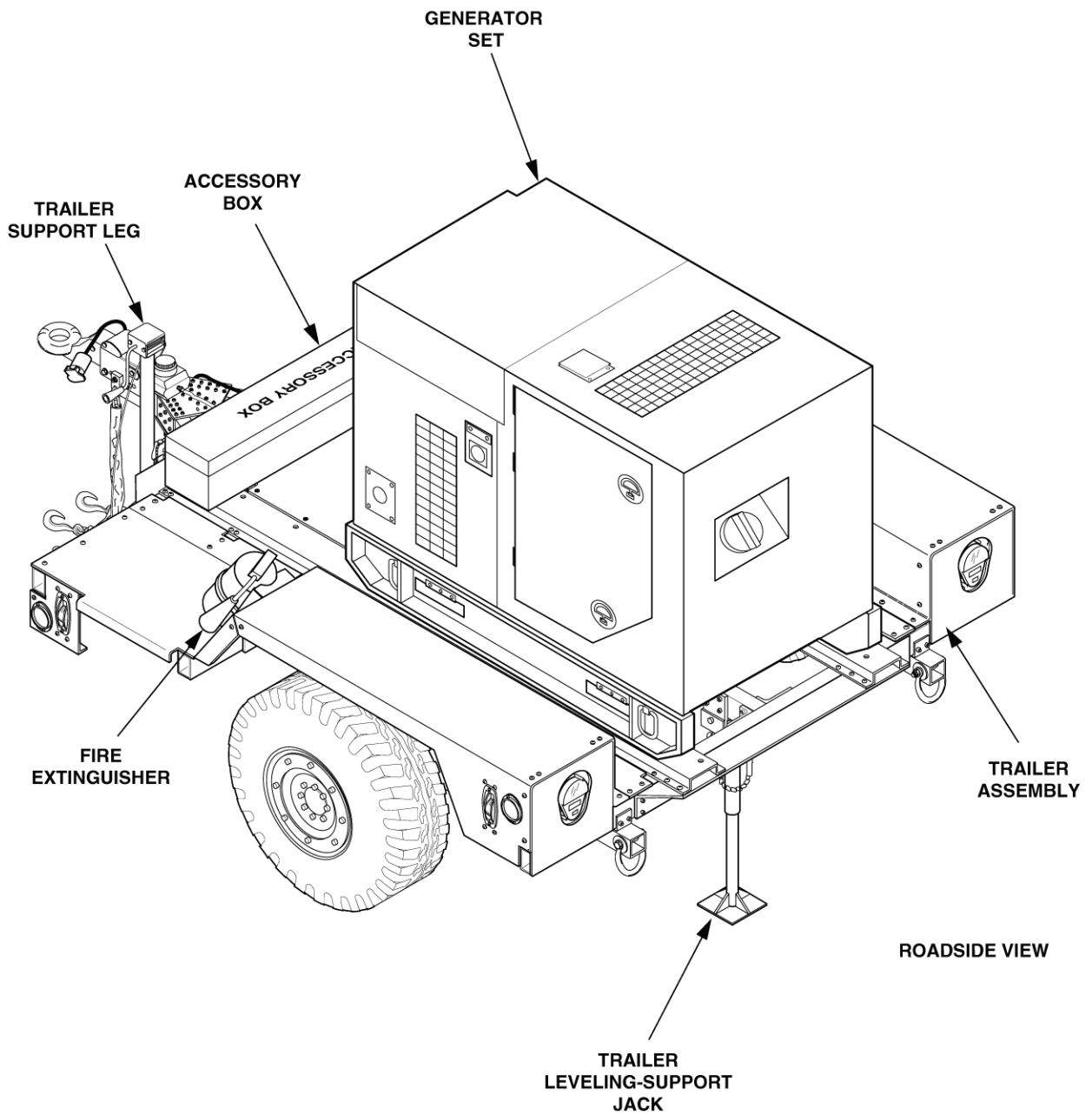


Figure 4. Features of PU-797A.

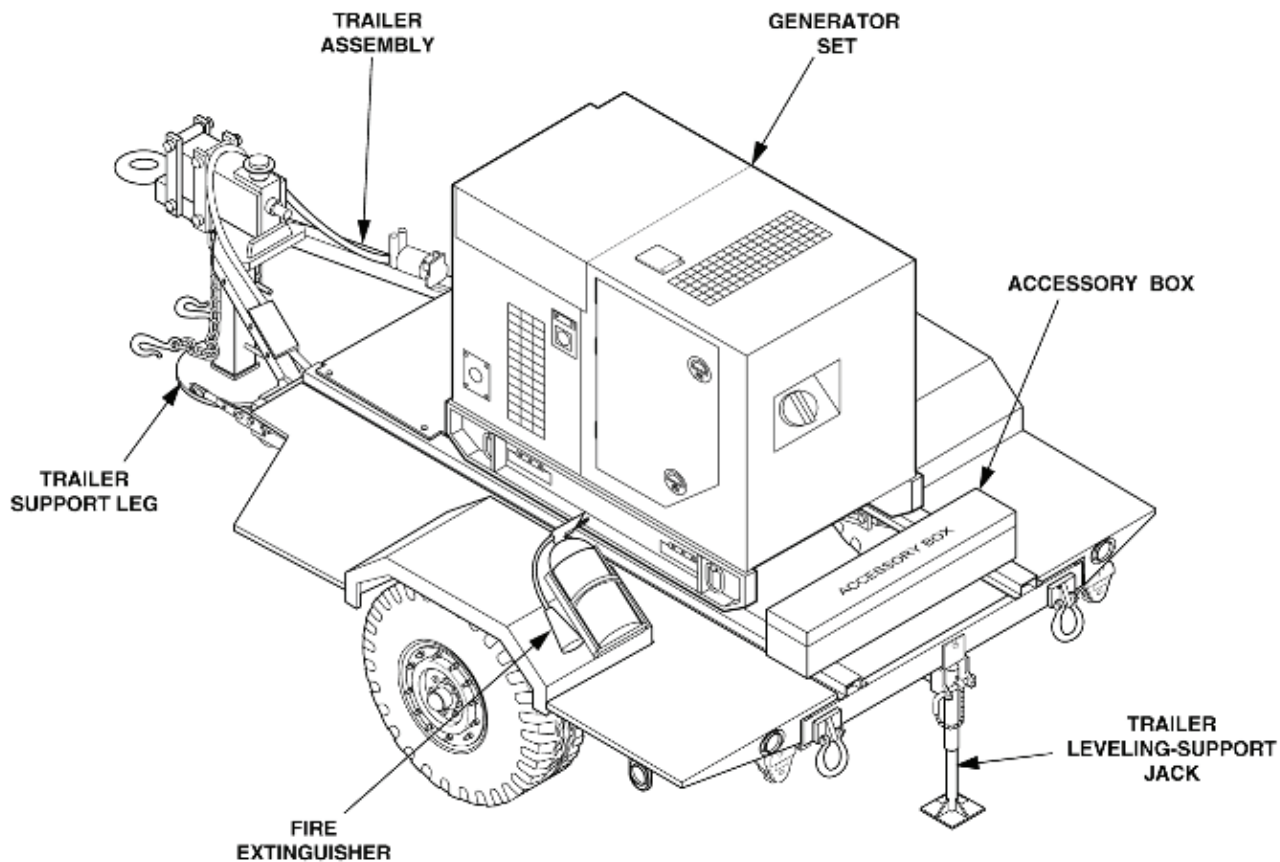


Figure 5. Features of PU-797.

MAINTENANCE FORMS, RECORDS, AND REPORTS

Department of the Army forms and procedures used for equipment maintenance will be those prescribed by (as applicable) DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual; DA PAM 738-751, Functional Users Manual for the Army Maintenance Management Systems - Aviation (TAMMS-A); or AR 700-138, Army Logistics Readiness and Sustainability.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATION (EIR)

If your power plant or power unit needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. If you have Internet access, the easiest and fastest way to report problems or suggestions is to go to <https://aeps.ria.army.mil/aepspublic.cfm> (scroll down and choose the "Submit Quality Deficiency Report" bar). The Internet form lets you choose to submit an Equipment Improvement Recommendation (EIR), a Product Quality Deficiency Report (PQDR or a Warranty Claim Action (WCA). You may also submit your information using an SF 368 (Product Quality Deficiency Report). You can send your SF 368 via e-mail, regular mail, or facsimile using the addresses/facsimile numbers specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual. We will send you a reply.

CORROSION PREVENTION AND CONTROL (CPC)

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items.

Corrosion specifically occurs with metals. It is an electrochemical process that causes the degradation of metals.

It is commonly caused by exposure to moisture, acids, bases, or salts. An example is the rusting of iron. Corrosion damage in metals can be seen, depending on the metal, as tarnishing, pitting, fogging, surface residue, and/or cracking. Plastics, composites, and rubbers can also degrade. Degradation is caused by thermal (heat), oxidation (oxygen), solvation (solvents), or photolytic (light, typically UV) processes. The most common exposures are excessive heat or light. Damage from these processes will appear as cracking, softening, swelling, and/or breaking.

SF Form 368, Product Quality Deficiency Report should be submitted to the address specified in DA PAM 750-8, The Army Maintenance Management System (TAMMS) Users Manual.

DESTRUCTION OF ARMY MATERIEL TO PREVENT ENEMY USE

Destruction of Army materiel to prevent enemy use shall be in accordance with TM 750-244-3.

PREPARATION FOR STORAGE OR SHIPMENT

Refer to WP 0059.

NOMENCLATURE CROSS-REFERENCE LIST

<u>Common Name</u>	<u>Official Nomenclature</u>
AN/MJQ-35	Power Plant, Diesel Engine Driven, 1-ton Trailer Mounted, 5 kW, 60 Hz
AN/MJQ-35A	Power Plant, Diesel Engine Driven, Light Tactical Trailer Mounted, 5 kW, 60 Hz
AN/MJQ-36	Power Plant, Diesel Engine Driven, 1 1/2-ton Trailer Mounted, 5 kW, 60 Hz
LTT	Chassis, Trailer: Light Tactical Trailer, 2 Wheel (altered)
M103A3	Chassis, Trailer: 1 1/2-ton, 2 Wheel (altered)
M116A3	Chassis, Trailer: 1-ton, 2 Wheel (altered)
MEP-802A	Generator Set, 5 kW, 60 Hz
PU-797	Power Unit, Diesel Engine Driven, 1-ton Trailer Mounted, 5 kW, 60 Hz
PU-797A	Power Unit, Diesel Engine Driven, Light Tactical Trailer Mounted, 5 kW, 60 Hz

LIST OF ABBREVIATIONS/ACRONYMS

<u>Abbreviations/Acronyms</u>	<u>Definition</u>
°C	Degrees Celsius
°F	Degrees Fahrenheit
AAL	Additional Authorization List
AC	Alternating Current
AMC	Army Material Command
AR	Army Regulations
AWG	American Wire Gauge
BII	Basic Issue Item
BLK	Black
BOI	Basis Of Issue
CAGE	Commercial And Government Entity
CAGEC	Commercial And Government Entity Code
cm	Centimeter

LIST OF ABBREVIATIONS/ACRONYMS - Continued

<u>Abbreviations/Acronyms</u>	<u>Definition</u>
COEI	Components Of End Item
conex	Container Express
CPC	Corrosion Prevention and Control
CTA	Common Table of Allowance
CUCV	Commercial Utility Cargo Vehicle
DOD	Department Of Defense
EIR	Equipment Improvement Recommendation
EMP	Electromagnetic Pulse
ESD	Electrostatic Discharge
FGC	Functional Group Code
FM	Field Manuals
FO	Foldouts
GAA	Grease, Artillery and Automotive
GND	Ground
HCI	Hardness Critical Item
HMMWV	High Mobility Multipurpose Wheeled Vehicle
Hz	Hertz
JP	Jet Propulsion Fuel
JTA	Joint Table of Allowances
kg	Kilogram
kPa	Kilopascals
kph	Kilometers Per Hour
kW	Kilowatt
lbf-ft	Foot Pound-force
LO	Lubrication Orders
LTT	Light Tactical Trailer
m	Meter (Metric Measure)
MAC	Maintenance Allocation Chart
MTOE	Modification Table of Organization and Equipment
NHA	Next Higher Assembly
NIIN	National Item Identification Number
N-m	Newton Meter
NSNs	National Stock Numbers
P/N	Part Number
PH	Phase
PMCS	Preventive Maintenance Checks and Services
PP	Power Plant
PQDR	Product Quality Deficiency Report

LIST OF ABBREVIATIONS/ACRONYMS - Continued

<u>Abbreviations/Acronyms</u>	<u>Definition</u>
PSI	Pounds Per Square Inch
PU	Power Plant
QTY	Quantity
ROD	Report of Discrepancy
RPSTL	Repair Parts and Special Tools List
SMR	Source, Maintenance, and Recoverability
SRA	Specialized Repair Activity
TAMMS	The Army Maintenance Management System
TASMG	Theater Aviation Support Maintenance
TB	Technical Bulletin
TDA	Table of Distribution and Allowances
TLM	Two Level Maintenance
TM	Technical Manual
TMDE	Test, Measurement, and Diagnostic Equipment
TOE	Table of Organization and Equipment
U/I	Unit of Issue
UOC	Usable On Code
UUT	Unit Under Test
UV	Ultra-Violet
VAC	Volts Alternating Current
VDC	Volts Direct Current
WCA	Warranty Claim Action
WHT	White
WP	Work Package

SUPPORTING INFORMATION FOR REPAIR PARTS, SPECIAL TOOLS, TMDE AND SUPPORT EQUIPMENT**Common Tools and Equipment**

For authorized common tools and equipment refer to the Modified Table of Organization and Equipment (MTOE) applicable to your unit.

Special Tools, TMDE, and Support Equipment

Refer to generator set TM 9-6115-641-24P, engine TM 9-2815-252-24P, 1-ton trailer TM 9-2330-202-14&P, Light Tactical Trailer TM 9-2330-392-14&P, and 1 1/2 ton trailer TM 9-2330-213-14&P.

Repair Parts

Generator Set Repair Parts. Refer to generator set TM 9-6115-641-24P and engine TM 9-2815-252-24P.

Trailer Repair Parts. Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit, PU-797, TM 9-2330-392-14&P for Power Plant, AN/MJQ-35A and Power Unit, PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

Power Plant/Power Unit Repair Parts. Power Plant/Power Unit repair parts not covered in the generator, engine, or trailer RPSTL are listed and illustrated in Chapter 7.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

EQUIPMENT DESCRIPTION AND DATA

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES

Characteristics

The power plants and power units consist of one or two DOD Model MEP-802A Tactical Quiet Generator Sets mounted on modified M116A3, 1-ton, M103A3, 1 1/2-ton, or Light Tactical trailers (LTT). Refer to TM 9-2330-202-14&P for detailed equipment characteristics about the M116A3, TM 9-2330-213-14&P for information about the M103A3 and TM 9-2330-392-14&P for information about the light tactical trailer. The modifications to the trailers include generator mounting rails, special lifting rings, special fenders, accessory box, fire extinguisher brackets, and rear leveling-support jack. Each generator set is a liquid-cooled, diesel engine driven unit, operating at 60 Hz with a load capacity of 5 kW. Refer to TM 9-6115-641-10 for detailed equipment characteristics about the generator set.

Power Plant AN/MJQ-35. This power plant has two generator sets and a switch box mounted on a modified 1-ton trailer, M116A3.

Power Plant AN/MJQ-35A. This power plant has two generator sets and a switch box mounted on a modified light tactical trailer (LTT).

Power Plant AN/MJQ-36. This power plant has two generator sets and a switch box mounted on a modified 1 1/2-ton trailer, M103A3.

Power Unit PU-797. This power unit has one generator set mounted on a modified 1-ton trailer, M116A3.

Power Unit PU-797A. This power unit has one generator set mounted on a Light Tactical Trailer (LTT).

Capabilities and Features

Power Plant AN/MJQ-35 and AN/MJQ-35A.

TOWING VEHICLE

AN/MJQ-35

CUCV (Commercial Utility Cargo Vehicle) or HMMWV (High Mobility Multipurpose Wheeled Vehicle)

AN/MJQ-35A

HMMWV

TIRE PRESSURE (Highway)

35 psi (241.3 kPa)

ELECTRICAL OUTPUT - 60 Hz:

120 volts, single phase, 2 wire

52 amps

120/240 volts, single phase, 3 wire

26 amps

120/208 volts, three phase, 4 wire

17 amps

Power Plant AN/MJQ-36.

TOWING VEHICLE

2 1/2 ton 6x6 or 5 ton 6x6

TIRE PRESSURE (Highway)

35 psi (241.3 kPa)

ELECTRICAL OUTPUT - 60 Hz:

120 volts, single phase, 2 wire

52 amps

120/240 volts, single phase, 3 wire

26 amps

120/208 volts, three phase, 4 wire

17 amps

Power Unit PU-797 and PU 797A.

TOWING VEHICLE

PU-797

CUCV or HMMWV

PU-797A

HMMWV

TIRE PRESSURE (Highway)

35 psi (241.3 kPa)

ELECTRICAL OUTPUT - 60 Hz:

120 volts, single phase, 2 wire

52 amps

120/240 volts, single phase, 3 wire

26 amps

120/208 volts, three phase, 4 wire

17 amps

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS

Refer to Figures 1, 2, and 3, and Tables 1, 2, and 3.

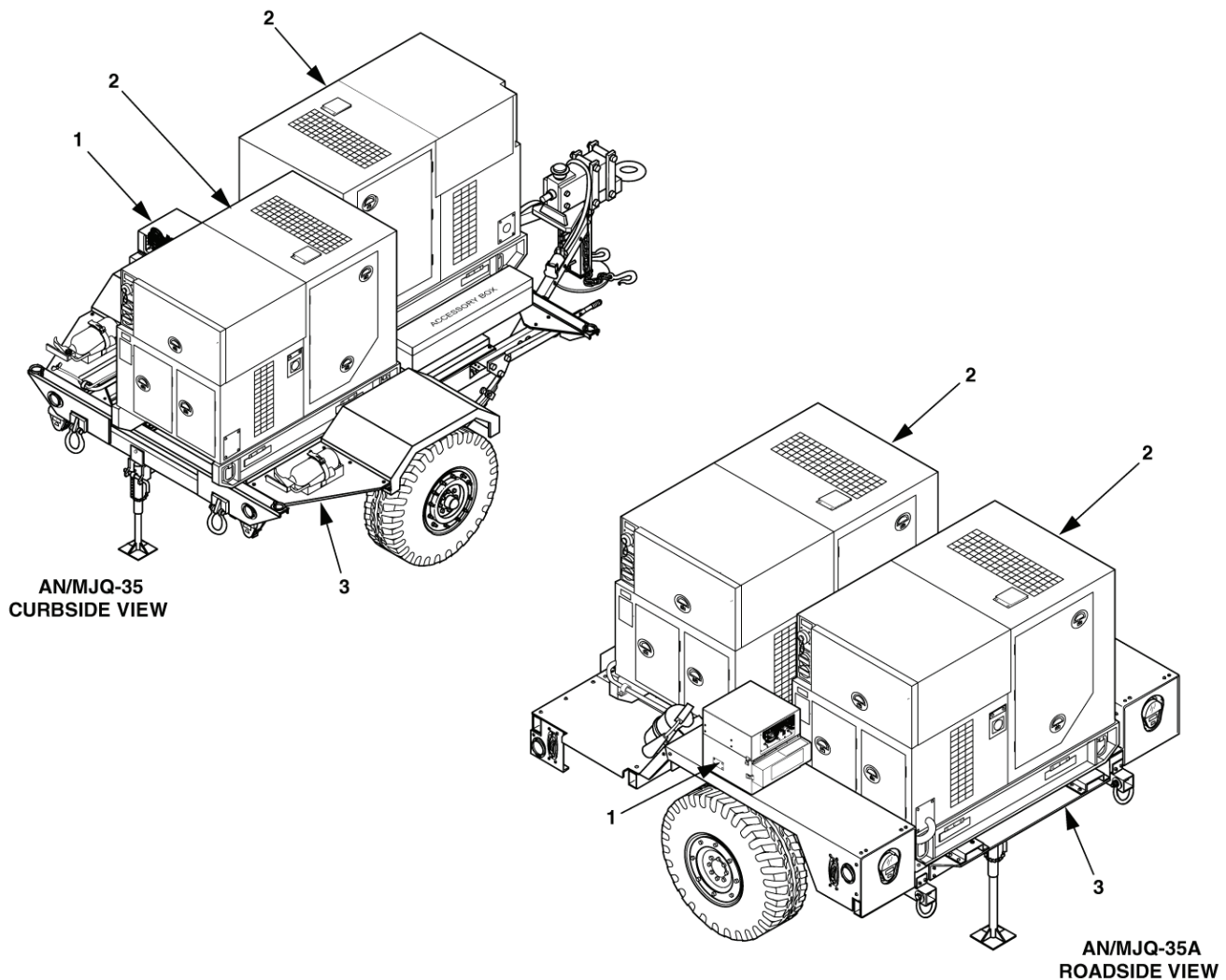
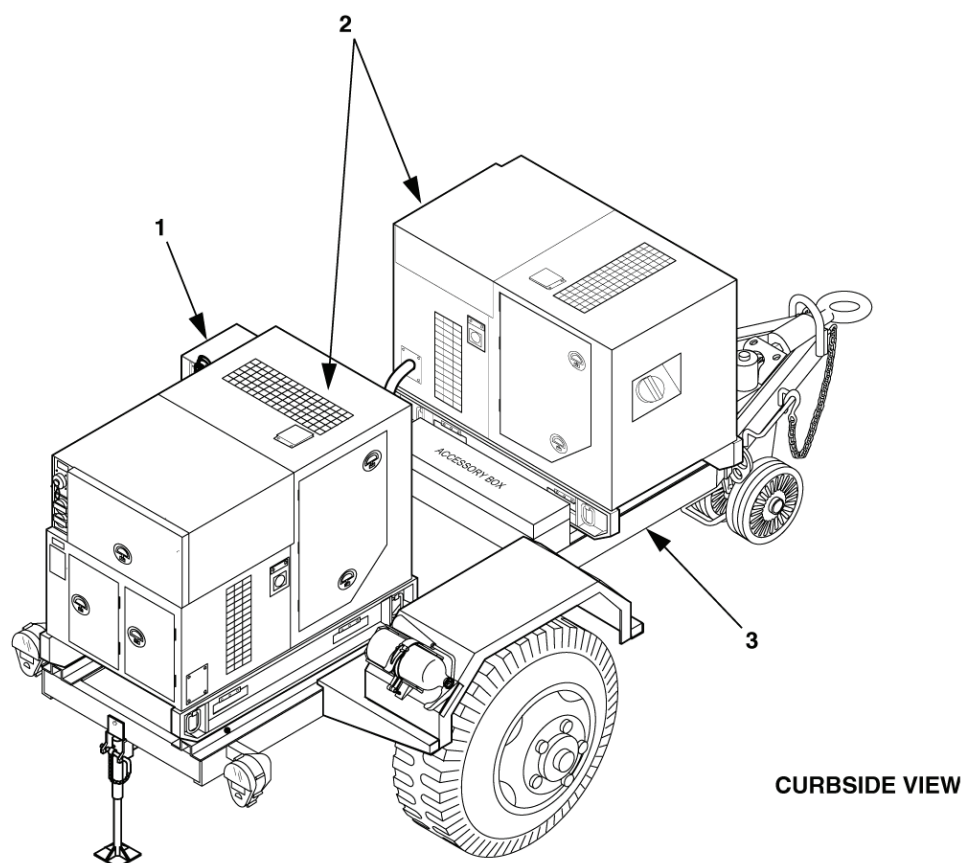


Figure 1. Location of Major Components, AN/MJQ-35 and AN/MJQ-35A.

Table 1. Description of Major Components, AN/MJQ-35 AND AN/MJQ-35A.

Item No.	Item Name	Description
1	SWITCH BOX	Connects output of generator set to the load, and permits switching between generators without power loss.
2	GENERATOR SETS	Supplies power to the load. Refer to TM 9-6115-641-10 for major components of generator set.
3	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box.

**Figure 2. Location of Major Components, AN/MJQ-36.****Table 2. Description of Major Components, AN/MJQ-36.**

Item No.	Item Name	Description
1	SWITCH BOX	Connects output of generator set to the load, and permits switching between generators without power loss.
2	GENERATOR SETS	Supplies power to the load. Refer to TM 9-6115-641-10 for major components of generator set.
3	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box.

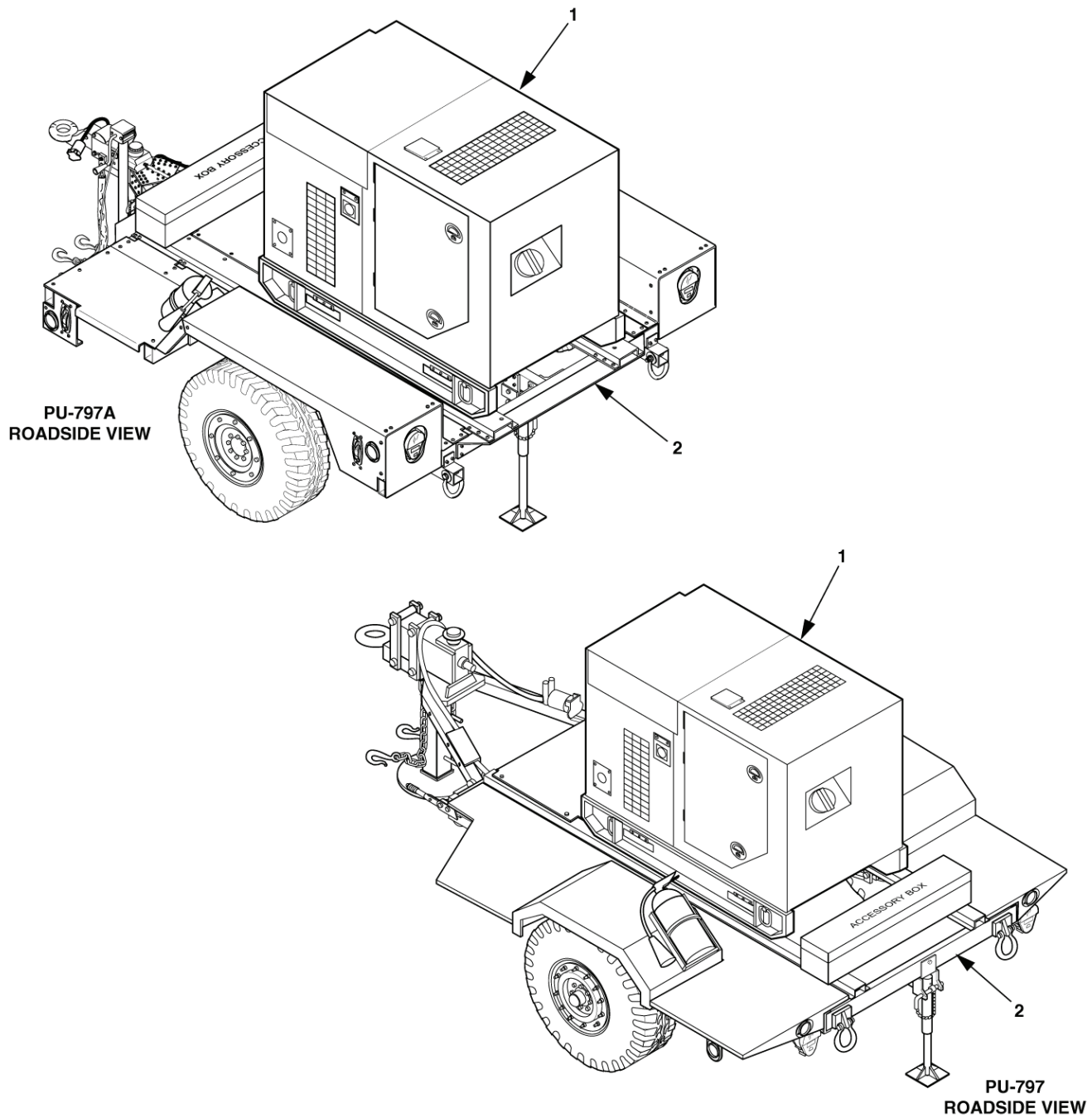


Figure 3. Location of Major Components, PU-797 and PU-797A.

Table 3. Description of Major Components, PU-797 and PU-797A.

Item No.	Item Name	Description
1	GENERATOR SET	Supplies power to the load. Refer to TM 9-6115-641-10 for major components of generator set.
2	TRAILER ASSEMBLY	Provides support and mounting for switch box, generator sets, and accessory box.

DIFFERENCES BETWEEN MODELS

Differences between the AN/MJQ-35, AN/MJQ-35A, AN/MJQ-36, PU-797, and PU-797A are identified in Table 4. A number (quantity) under the applicable power plant or power unit column heading indicates that the item is a component of that power plant or power unit.

Table 4. Differences Between Models.

Component	AN/MJQ-35	AN/MJQ-35A	AN/MJQ-36	PU-797	PU-797A
Generator Set, 60 Hz	2	2	2	1	1
Switch Box	1	1	1		
Trailer Chassis, 1-ton, M116A3	1			1	
Trailer, Chassis, 1 1/2-ton, M103A3			1		
Trailer, Chassis, Light Tactical Trailer		1			1

Differences Between Switch Boxes

Currently there are two versions of the switch box that may be encountered in the field, the older version manufactured starting in 1993 (WP 0005, Figure 7) and a newer version manufactured from 1996 forward which is pictured in this manual (WP 0005, Figure 6). Maintenance procedures are the same for both versions of the switch box. Old switchbox is no longer available. Part number for new switchbox is D13230E6535.

EQUIPMENT DATA

Generator Set

Refer to TM 9-6115-641-10.

Trailer Chassis

AN/MJQ-35, 1-ton Trailer Chassis (M116A3). Refer to TM 9-2330-202-14&P.

AN/MJQ-36 1 1/2-ton Trailer Chassis (M103A3). Refer to TM 9-2330-213-14&P.

PU-797 1-ton Trailer Chassis (M116A3). Refer to TM 9-2330-202-14&P.

AN/MJQ-35A and PU-797A, Light Tactical Trailer Chassis (LTT). Refer to TM 9-2330-392-14&P.

Tabulated Data for Power Plants/Power Units**Table 5. Tabulated Data for Power Plants/Power Units.**

Data	AN/MJQ-35	AN/MJQ-35A	AN/MJQ-36	PU-797	PU-797A
Overall length, Inches (cm)	154.0 (391.2)	135.0 (342.9)	165.0 (419.1)	145.0 (368.3)	135.0 (342.9)
Overall width, Inches (cm)	83.5 (212.1)	86.0 (218.4)	83.0 (210.8)	83.5 (212.1)	86.0 (218.4)
Overall height, Inches (cm)	74.0 (188.0)	66.0 (167.6)	70.2 (178.3)	76.0 (193.0)	66.0 (167.6)
Operational weight, Pounds (kg)	3087 (1400.3)	2934 (1330.8)	3785 (1716.9)	2320 (5114.7)	2217 (1005.6)
Shipping weight, Pounds (kg)	3285 (1490.1)	3140 (1424.3)	3985 (1807.5)	2360 (1070.5)	2257 (1023.8)

Table 6. Towed Speeds for Power Plants/Power Units.

Equipment	Paved Highway	Cross Country
AN/MJQ-35, 35A and 36 (1, 1½, or Light Tactical Trailer)	50	20
PU-797 and 797A (1, 1½, or Light Tactical Trailer)	50	20

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****THEORY OF OPERATION**

FUNCTIONAL DESCRIPTION**Power Plant Functional Description**

The Power Plants are mobile. The power source for each power plant is two DOD Model MEP-802A 60 Hz Tactical Quiet 5 kW Generator Sets mounted on a single modified 2-wheel trailer. The AN/MJQ-35 is mounted on a modified Model M116A3, 1-ton, trailer. The AN/MJQ-35A is mounted on a modified light tactical trailer. The AN/MJQ-36 is mounted on a modified Model M103A3 1 ½-ton trailer. Each generator set consists of a liquid-cooled diesel engine, brushless generator, excitation system, speed governing system, fuel system, 24-volt direct current starting system, control system, and malfunction protection system.

The generator set has a voltage reconnection switch that allows either of three output configurations: 120-volt, single phase, 2-wire; 120/240-volt, single phase, 3-wire; or 120/208-volt, three phase, 4-wire. Electrical power to the supported system or equipment is supplied through a switch box assembly. The switch box assembly is connected between the two generator sets by power cables. The switch box enables transfer of the load from one generator set to the other without interruption of power. The system or equipment load cable may be connected to the switch box by either of two arrangements. One way is to connect a load cable to the switch box output connector. The other way is to connect a load cable to the switch box load terminals. The Switch Box contactors are powered by J16 on their respective generators. J16 is protected by the Convenience Receptacle Ground Fault Circuit Interrupter.

Power Unit Functional Description

The Power Unit is mobile. The power source is one Tactical Quiet 5 kW Generator Set mounted on a modified Model M116A3, 2-wheel, 1-ton trailer (PU-797) or a modified light tactical trailer (PU-797A). The generator set consists of a liquid-cooled diesel engine, brushless generator, excitation system, speed governing system, fuel system, 24-volt direct current starting system, control system, and malfunction protection system. The generator set has a voltage reconnection switch that allows either of three output configurations: 120-volt, single phase, 2-wire; 120/240-volt, single phase, 3-wire; or 120/208-volt, three phase, 4-wire. The Power Unit uses a DOD Model 802A Generator Set operating at 60 Hz. System or equipment load cables are to be connected to the load terminals on the generator set output panel.

RELATED TECHNICAL MANUALS

Refer to WP 0109, References, for related technical manuals and lubrication orders.

END OF WORK PACKAGE

CHAPTER 2

OPERATOR INSTRUCTIONS

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 2
OPERATOR INSTRUCTIONS

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Description and Use of Operator Controls and Indicators.....	0004
Operation Under Usual Conditions.....	0005
Operation Under Unusual Conditions.....	0006

OPERATOR MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****DESCRIPTION AND USE OF OPERATOR CONTROLS AND INDICATORS**

OPERATOR CONTROLS AND INDICATORS**Generator Set**

Refer to TM 9-6115-641-10.

Trailer

Refer to TM 9-2330-202-14&P for AN/MJQ-35 and PU-797, TM 9-2330-392-14&P for AN/MJQ-35A and PU-797A, and TM 9-2330-213-14&P for AN/MJQ-36.

Power Plant Switch Box Controls

Refer to Figures 1 and 2, and Table 1 for operator controls and indicators.

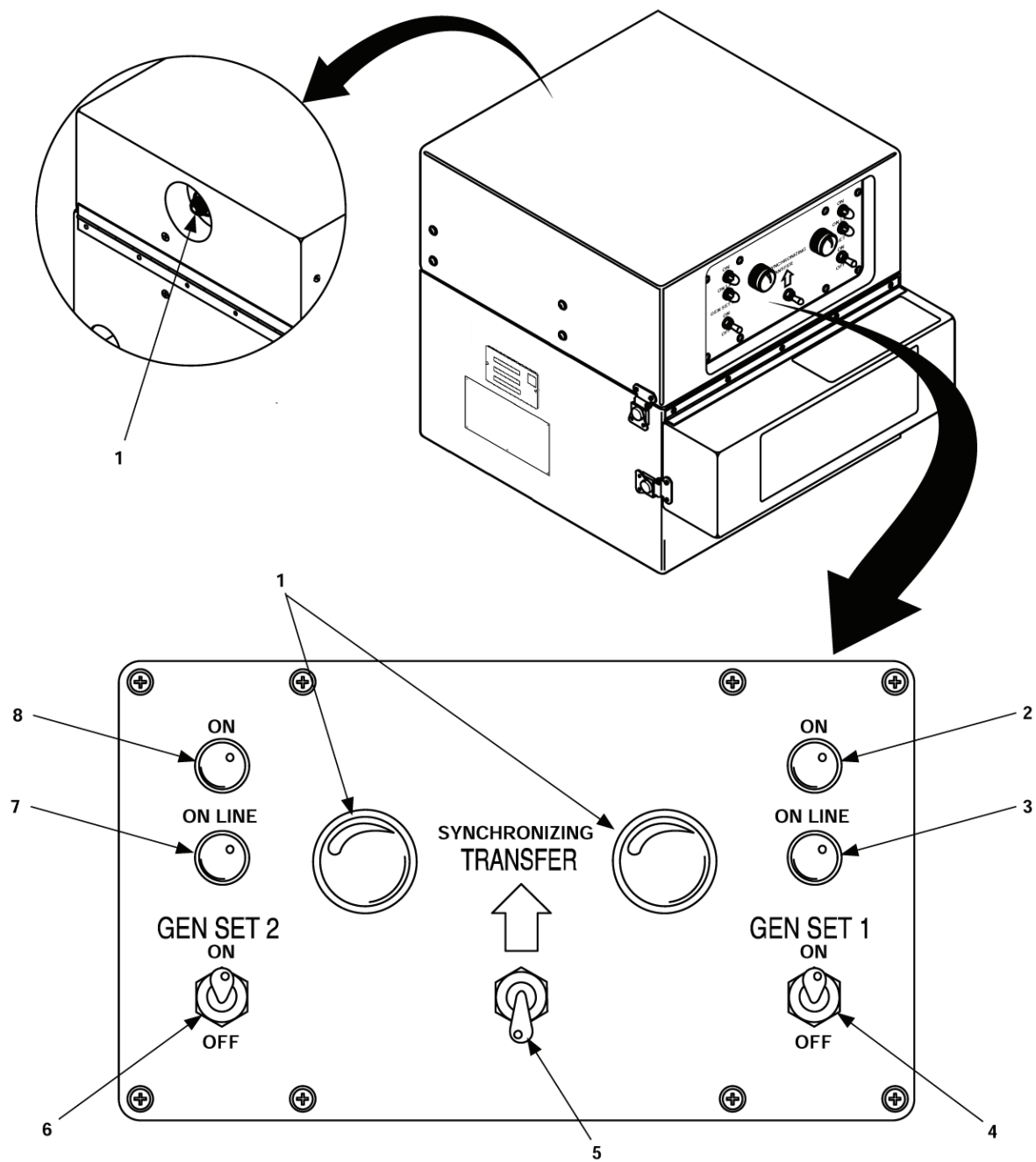


Figure 1. Switch Box Controls and Indicators (NEW).

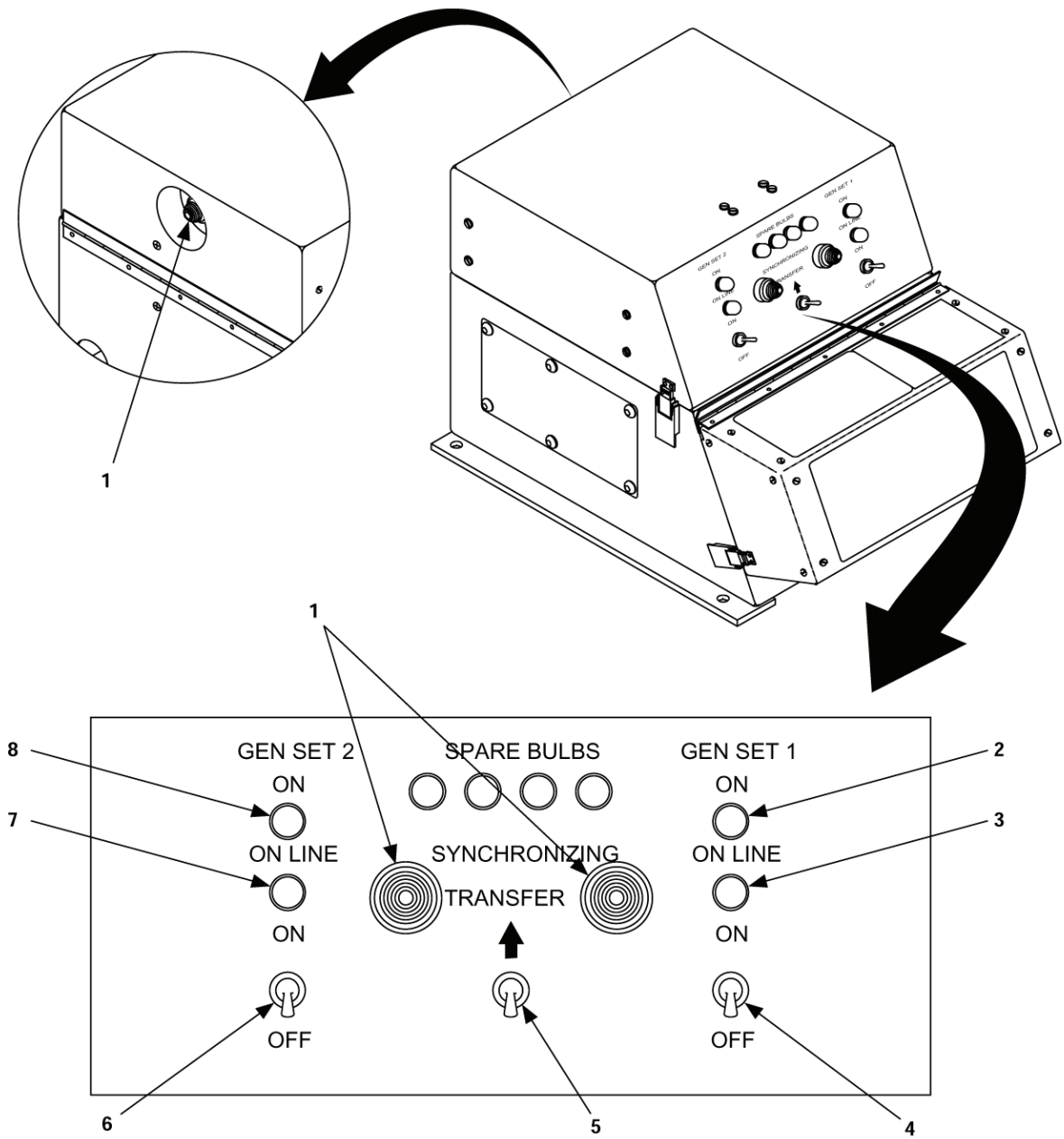


Figure 2. Switch Box Controls and Indicators (OLD).

Table 1. Switch Box Controls and Indicators.

Key	Control/Indicator	Function
1.	SYNCHRONIZING light	Used to synchronize generator sets for transferring load. All three lights are dark when only one generator set is operating. The lights simultaneously go from bright to dark and back to bright in repeated cycles after TRANSFER switch (5) is engaged while one generator set is on line and other is ready to go on line. All three are again dark after load has been transferred.
2.	ON light for GEN SET 1 (front generator set)	Lights when front generator set is supplying power to switch box.
3.	ON LINE light for GEN SET 1 (front generator set)	Lights when front generator set is supplying power to the load.
4.	ON/OFF switch for GEN SET 1 (front generator set)	Toggle switch, used to place front generator set on line when generator set is ready or take it off line before shutting it down.
5.	TRANSFER switch	Toggle switch, used to transfer load when one generator set is on line and SYNCHRONIZING lights (1) indicate that other generator set is ready to go on line.
6.	ON/OFF switch for GEN SET 2 (rear generator set)	Toggle switch, used to place rear generator set on line when generator set is ready or take it off line before shutting it down.
7.	ON LINE light for GEN SET 2 (rear generator set)	Lights when rear generator set is supplying power to the load.
8.	ON light for GEN SET 2 (rear generator set)	Lights when rear generator set is supplying power to switch box.

END OF WORK PACKAGE

OPERATOR MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****OPERATION UNDER USUAL CONDITIONS**

INITIAL SETUP:**Personnel Required**

Operator (1)
91D Assistant (1)

References

Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Unusual Conditions (WP 0006)
Troubleshooting Procedures (WP 0008)
PMCS Introduction (WP 0009)
PMCS (WP 0010)
Additional Authorization List (WP 0113)
FM 5-424
TB 43-0125
TM 9-6115-641-10
TM 9-2330-202-14&P (1 Ton Trailer)
TM 9-2330-213-14&P (1½ Ton Trailer)
TM 9-2330-392-14&P (Light Tactical Trailer)

Equipment Condition

Both Sets: Trailer Support Devices Engaged (WP 0005)
Grounded IAW (WP 0005)
Engine Control Master Switch in OFF Position (WP 0005)

ASSEMBLY AND PREPARATION FOR USE**Unpacking the Power Plants/Power Units**

Unpacking must be performed by field level maintenance personnel.

Installation Instructions

Before the power plant/power unit is started and operated, it is towed to the worksite and positioned.

Positioning Power Plant/Power Unit.

1. Locate the trailer on as level a surface as possible. This is necessary for efficient operation of the generator set(s).

WARNING

Do not disconnect trailer from towing vehicle before hand brakes are set and front landing leg and rear support leg are lowered. Failure to comply with this warning can cause personal injury or death from trailer tipping or rolling, and equipment damage.

2. Using the two handbrake levers, set trailer brakes securely to prevent any movement.
3. Refer to TM 9-2330-202-14&P for uncoupling AN/MJQ-35 or PU-797 trailer from towing vehicle, TM 9-2330-392-14&P for uncoupling AN/MJQ-35A or PU-797A trailer from towing vehicle, and TM 9-2330-213-14&P for uncoupling AN/MJQ-36 trailer from towing vehicle.
4. Adjust front landing leg using elevation crank to level the trailer.
5. Pull out pin (Figure 1, Item 1) that secures rear leveling-support jack (2) in travel position.

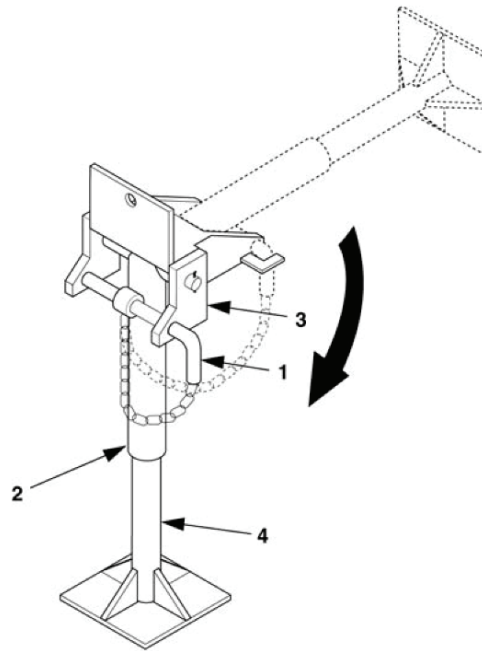


Figure 1. Rear Leveling-Support Jack.

6. Pull rear leveling-support jack (2) down. Insert pin (1) in bracket (3) to secure rear leveling-support jack (2) in down position.
7. Turn leg base (4) until it makes firm contact with ground.

END OF TASK

External Fuel Line Connection

Each generator set has provisions for obtaining fuel from an external source, such as a 5-gallon fuel can or a 55-gallon diesel fuel container. This enables operation for long intervals without frequent refilling of the fuel tank. To use an external fuel source:

WARNING

Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment.

WARNING

Fuel is combustible and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change soaked clothing promptly if exposed to fuel. Failure to comply may cause injury or death to personnel.

WARNING

Fuels used in the generator set are combustible. Ensure fuel source grounding strap is connected to unit fuel fill grounding stud. When filling the fuel tank maintain metal-to-metal contact between filler nozzle and fuel tank opening to eliminate Electrostatic Discharge (ESD). Failure to comply may cause injury or death to personnel.

WARNING

Hot engine surfaces from engine and generator circuitry are possible sources of ignition. When refueling during unit operation with Diesel Fuel (DF)-1, DF-2, Jet Propulsion Fuel (JP) 5, or JP8, avoid fuel splash and fuel spill. Do not smoke or use open flame when performing refueling. Remember Preventive Maintenance Checks and Services (PMCS) are still required. Flames and possible explosion may result. Failure to comply may cause injury or death to personnel.

1. Place the external fuel source (Figure 2, Item 2) several feet, but no more than 25 feet, away from the generator set.

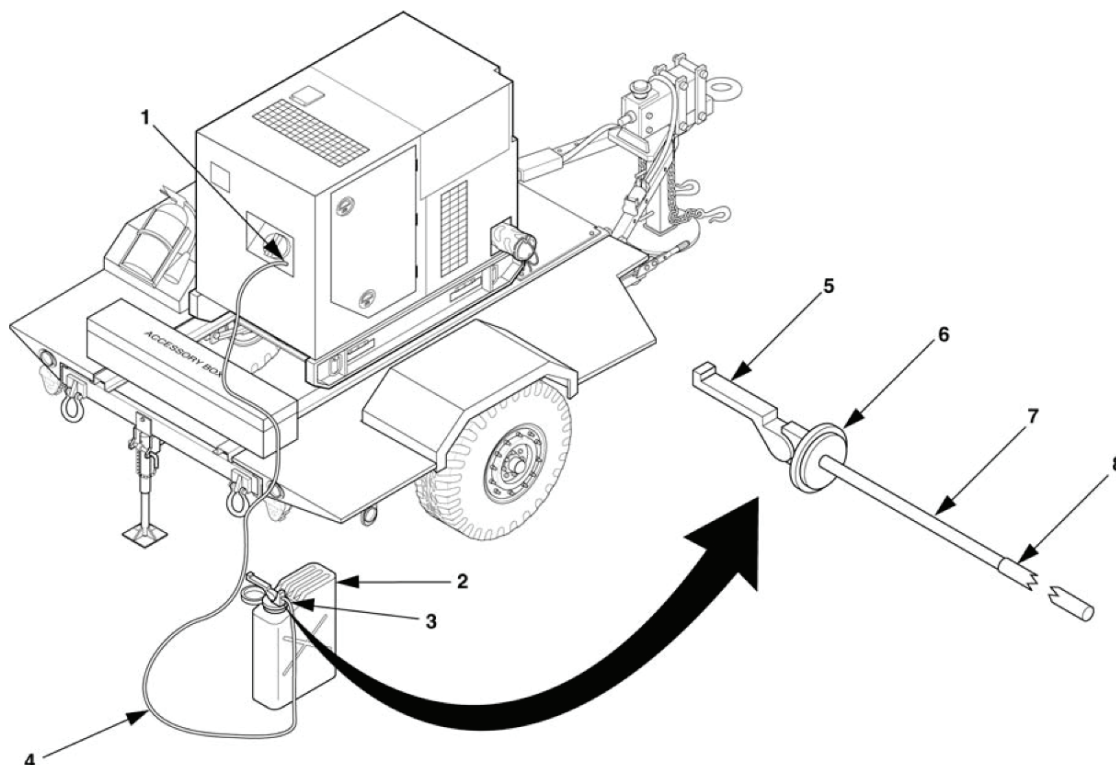


Figure 2. Auxiliary Fuel (Typical).

2. Remove the container adapter (3) from the accessory storage box. If disassembled, remove all components. The components are the assembled clamp (5) and head (6), a fuel pickup tube (7), and an extension pipe (8). The extension pipe is not needed if the external fuel source is a 5-gallon fuel can (2).

NOTE

Make sure that all components are clean.

3. Thread the fuel pickup tube (7) into the head (6). If the external fuel source is a 55-gallon container, thread the extension pipe (8) onto the fuel pickup tube (7).
4. Remove the auxiliary fuel hose (4) from its storage location. It is stored in a compartment below the generator set control panel, behind the bottom-right access door.
5. Thread one end of the auxiliary fuel hose (4) onto the fitting on the container adapter (3). Tighten the connection.
6. Connect the free end of the auxiliary fuel hose (4) onto the generator set external fuel supply connection (1). The connection is located beside the generator set fuel tank filler neck. Tighten the connection.

WARNING

Fuel is combustible and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change soaked clothing promptly if exposed to fuel. Failure to comply may cause injury or death to personnel.

WARNING

Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment.

7. Insert the container adapter (3) into the external fuel source (2). Secure the container adapter by pressing down on the handle of the clamp (5).

END OF TASK**Grounding of Power Unit/Power Plant (Trailer)****WARNING**

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

Ground the equipment in accordance with Army Technical Bulletin, TB 43-0125 (Installation of Communications Electronic Equipment: Hookup of Electrical Cables to Mobile Generator Sets on Fielded Equipment to Meet Electrical Safety Standards) and Field Manual, FM 5-424 (Theatre of Operations Electrical Systems). Typical ground rod installations are shown in Figure 5. Install and connect ground rod as follows:

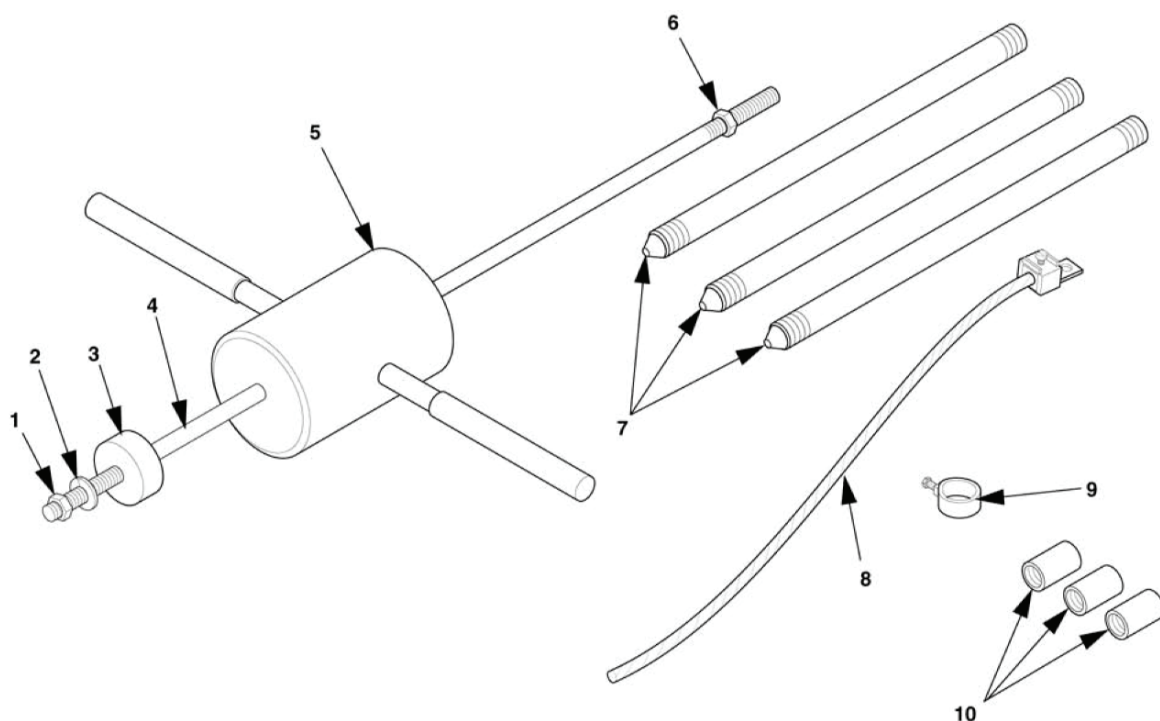


Figure 3. Ground Rod and Slide Hammer.

1. Remove ground rod, grounding strap, and slide hammer (Figure 3) from accessory box. Perform assembly Steps a through d.

WARNING

Impact disk must be tightened to end of threads on rod. Also, lock washer and nut must be tightened firmly against impact disk. Failure to comply with this warning can result in severe personal injury and/or damage to the equipment.

NOTE

The terminal lug supplied with the ground rod is too small. Use additional ground strap provided with power unit.

- a. Install impact disk (3) on rod (4). Tighten impact disk to end of threads on rod (4).
- b. Install lock washer (2) and nut (1). Tighten nut (1) and lock washer (2) securely against impact disk (3).
- c. If installed, remove nut (6).
- d. Position hammer (5) on rod (4). Install nut (6) and tighten to end of threads on rod (4).
2. Connect ground rod coupling (10) to ground rod (7) and screw slide hammer into coupling (10). Make sure that slide hammer rod (4) seats on ground rod (7).
3. Drive ground rod into ground until coupling is just above surface.
4. Remove slide hammer assembly and install another section of ground rod (7).
5. Install another coupling (10) and the slide hammer assembly. Drive ground rod down until new coupling is just above ground surface.
6. Repeat steps 4 and 5 until ground rod has been driven eight feet or deeper, providing an effective ground.
7. Connect clamp (9) and ground cable (8) to ground rod (7) and tighten clamp screw.
8. Connect ground cable (8) to trailer as follows.

NOTE

Ground terminal on LTT is different than one located on other trailers.

- a. If LTT (AN/MJQ-35A or PU-797A) is being used, perform Steps e and f. Otherwise, perform Steps b through d.
 - b. Remove and retain wing nut (Figure 4, Item 1) and flat washer (2) from trailer ground stud (4) and install ground cable terminal lug (3) to ground stud (4).
 - c. Install flat washer (2) on ground stud (4).
 - d. Install wing nut (1) on the ground stud (4) and tighten.
 - e. Loosen nut (5) on LTT ground terminal (6).
 - f. Insert wire (7) through slot of ground terminal (6) and tighten nut (5).
9. Disassemble slide hammer as follows:
- a. Remove nut (Figure 3, Item 6) from end of rod (4) and retain.
 - b. Remove hammer (5) from rod (4) and thread nut (6) on end of rod to prevent loss.
 - c. Store hammer (5) and rod (4) with assembled parts in accessory box.

END OF TASK**Connecting Load****WARNING**

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Generator set operator is permitted to make connections to out terminal board only. Connections to load distribution points or to equipment beyond the output terminal board shall only be made by properly trained and authorized personnel. Failure to comply may cause injury or death to personnel.

Power Plant. Load cables and instructions for connecting them are normally furnished with the equipment that is to be supplied with electric power. The load may be connected to the switch box (Figure 6, Item 1) and (Figure 7, Item 1) by either of two arrangements. One way is to connect a load cable to the switch box output connector (Figure 7, Item 7). The other way is to connect load cables to the switch box load terminals (Figure 6, Item 3). Before connecting the load, determine voltage requirements of the system or equipment that is to receive electric power.

Connection to Switch Box Load Terminals.**WARNING**

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Do not contact output cables when operating this generator set. Failure to comply may cause injury or death to personnel.

1. Remove cap (Figure 7, Item 6) from output connector (7).
2. Connect load cable to output connector (7).

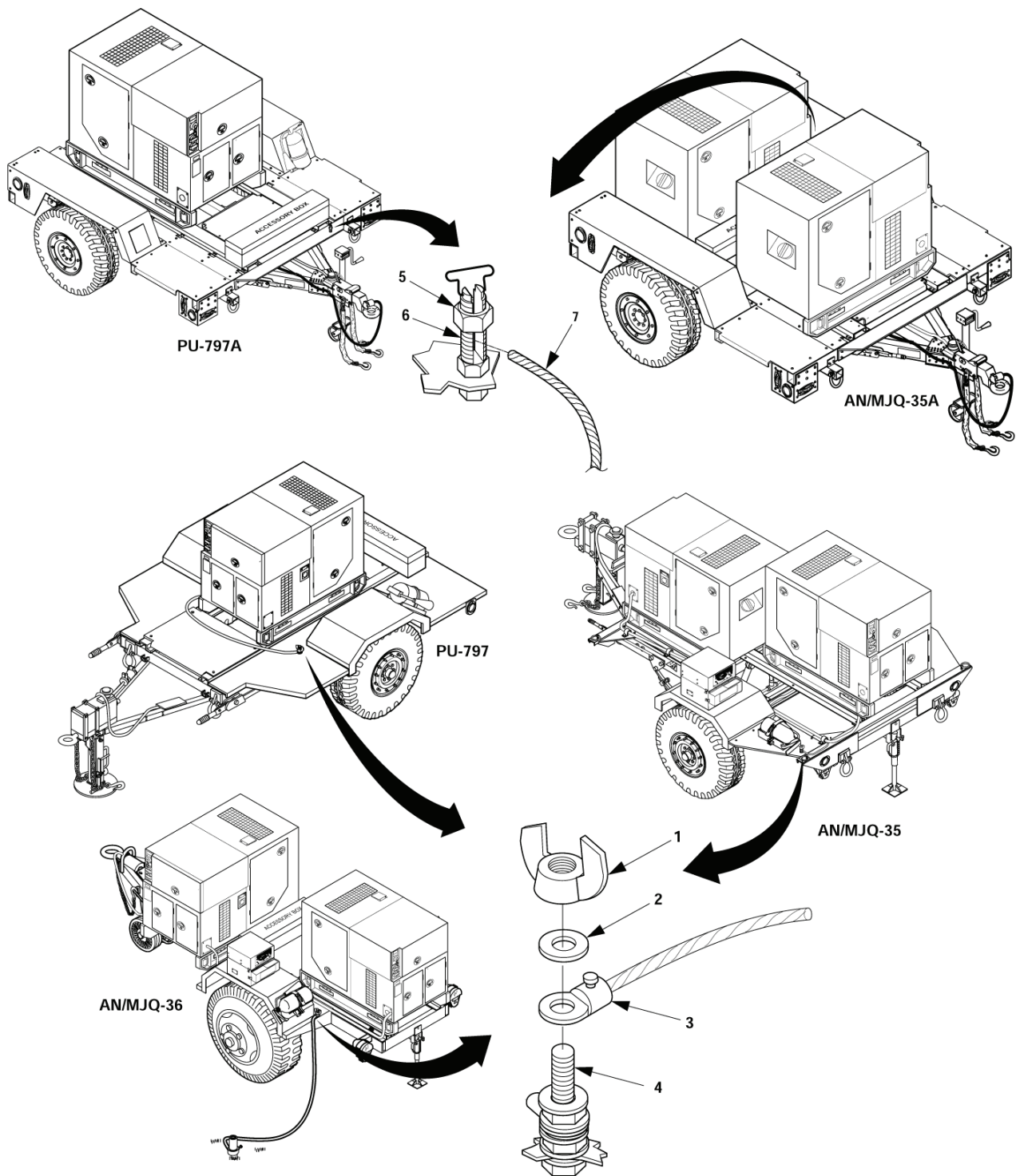


Figure 4. Power Plant and Power Unit Ground Connections.

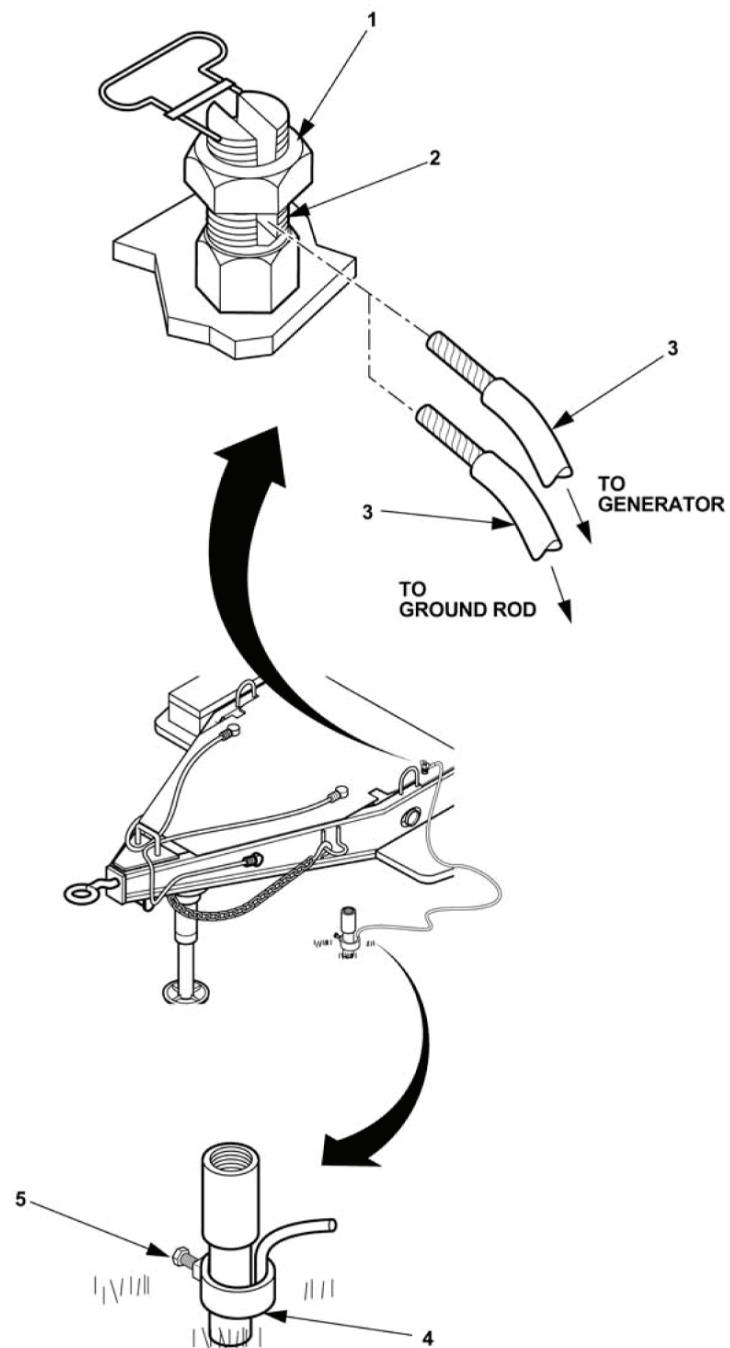


Figure 5. Typical Ground Rod Installations.

3. Release both clamping catches (Figure 6, Item 4) and raise load terminal cover (2).

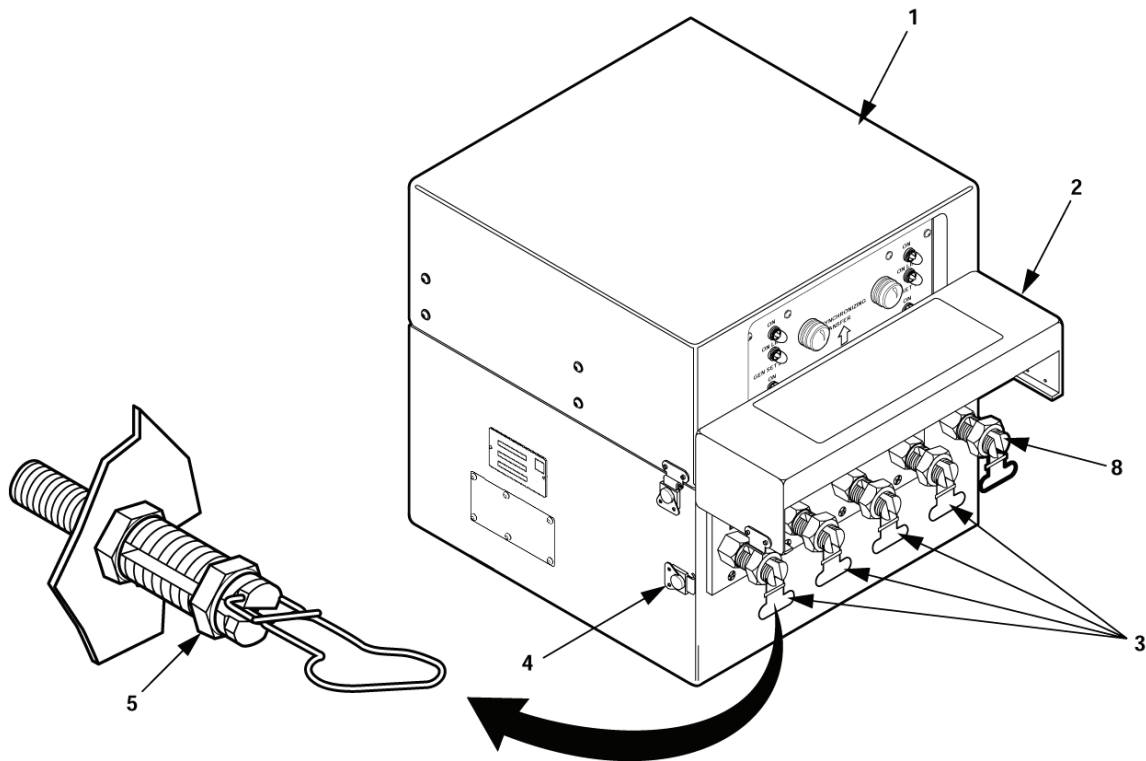


Figure 6. Switch Box Load Cable Connections (NEW).

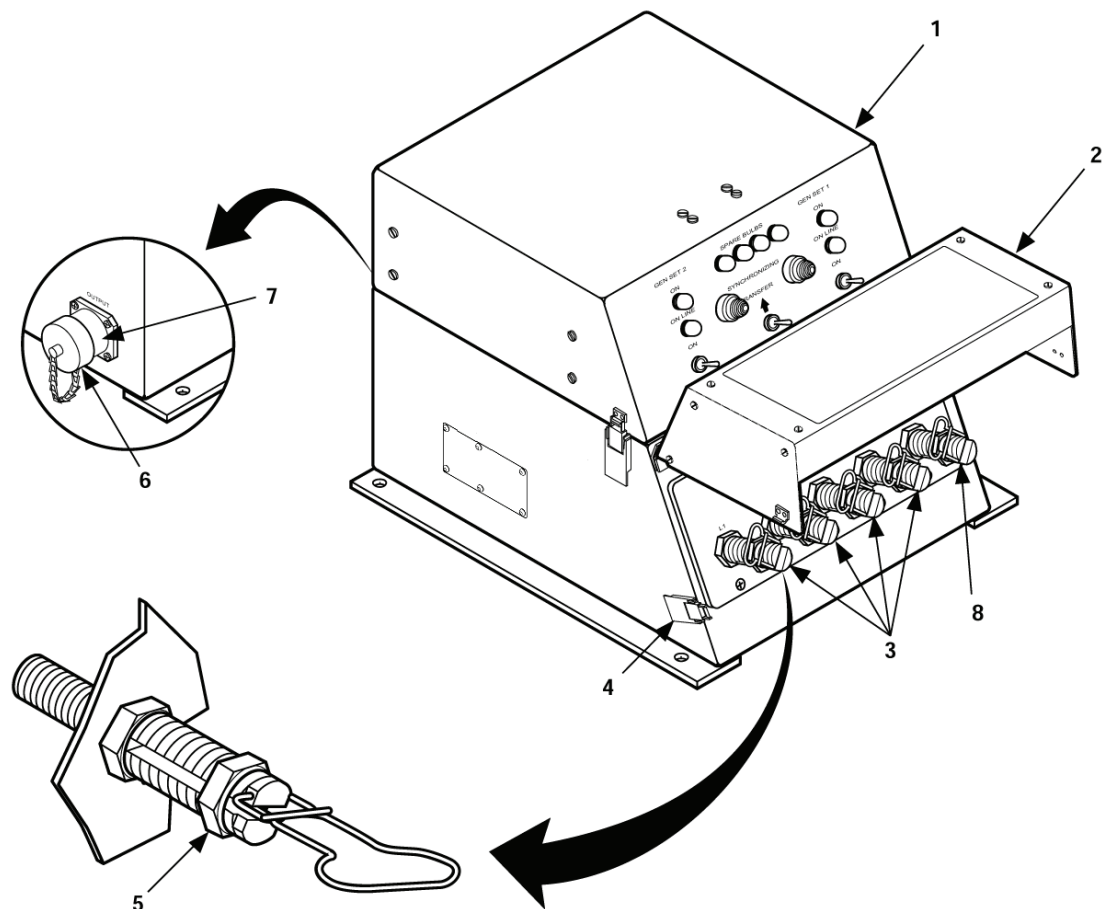


Figure 7. Switch Box Load Cable Connections (OLD).

4. Select required output terminals from Table 1.

CAUTION

When using single phase connections, always attempt to balance loads between terminals (do not connect all loads between one terminal and N). Failure to observe this caution can result in damage to generator set.

NOTE

In five wire configuration, ground lead will be connected to ground terminal (8).

Table 1. Load Terminal Voltage.

Generator Output	Terminals	Phase	Voltage Reading
120/208V 3PH	L1, L2 L3, N	L1 - L2 3 PHASE	208 VOLTS
		L2 - L3 3 PHASE	208 VOLTS
		L3 - L1 3 PHASE	208 VOLTS
		L3 - N 3 PHASE	120 VOLTS
120V 1PH	L3 - N	L3 - N 1 PHASE	120 VOLTS

Table 1. Load Terminal Voltage. - Continued

Generator Output	Terminals	Phase	Voltage Reading
120/240V 1PH	L3 - L1	L3 - L1 1 PHASE	240 VOLTS
	L3 - N	L3 - N 1 PHASE	120 VOLTS
	OR		
	L1 - N	L1 - N 1 PHASE	120 VOLTS

5. Using load terminal box wrench located in accessory box, loosen terminal nuts (5) on terminals (3) selected in Step 2.
6. Insert ends of cables into slots of load terminal studs (3).
7. Tighten load terminal nuts (5).

END OF TASK

Power Unit. Connect load cables to generator set load terminals. Refer to operating instructions in TM 9-6115-641-10.

Positioning of Fire Extinguishers

Remove fire extinguisher(s) from bracket(s) on trailer. Locate fire extinguisher(s) on ground away from power plant/power unit.

INITIAL ADJUSTMENTS, CHECKS, AND SELF TEST

Refer to WP 0010, Table 1 and perform all "Before" PMCS. Refer to TM 9-6115-641-10 and perform generator set initial adjustments, checks, and self tests.

OPERATING PROCEDURES**WARNING**

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Exhaust discharge contains deadly gases, including carbon monoxide. Do not operate generator set in an enclosed area unless exhaust discharge is properly vented. Failure to comply may cause injury or death to personnel.

WARNING

Hot exhaust gases can ignite combustible materials. Allow room for safe discharge of hot gases. Failure to comply may cause injury or death to personnel.

Generator Set Operating Procedures

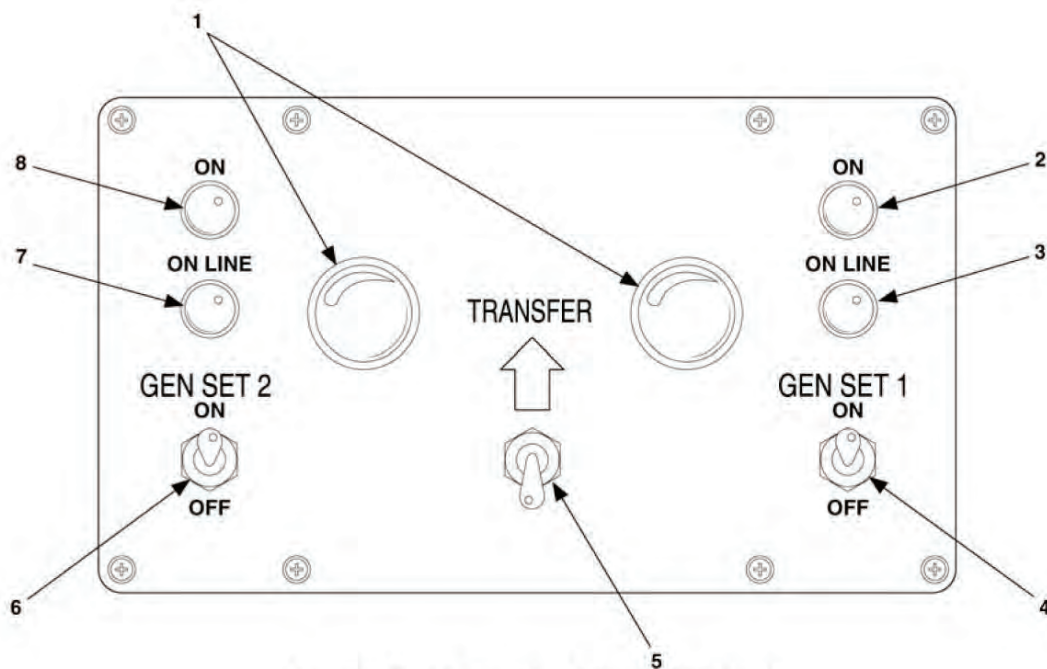
Refer to TM 9-6115-641-10.

Trailer Operating Procedures

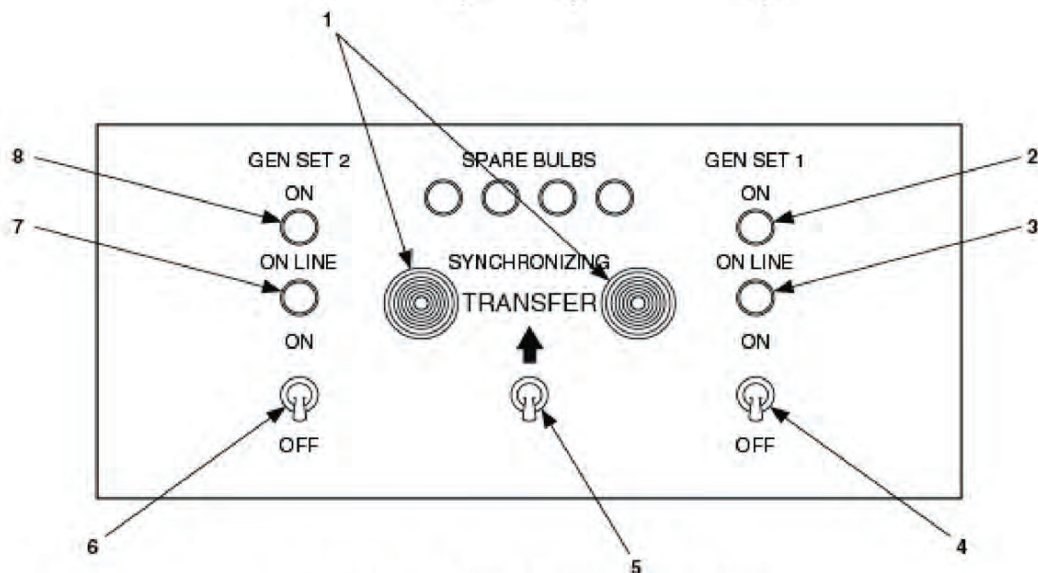
Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

Power Plant Switch Box Operating Procedures**Operating a Single Generator Set.**

1. Perform the Preventive Maintenance Checks and Services (PMCS) listed as "Before" in WP 0010, Table 1.
2. Check that both ON/OFF switches (Figure 8, Items 4 and 6) on switch box are at center position.
3. Check that TRANSFER switch (5) on switch box is at bottom position.



Power Plant Operation (New Switchbox)



Power Plant Operation (Old Switchbox)

Figure 8. Power Plant Operation (OLD and NEW).

4. Refer to TM 9-6115-641-10 and:
 - a. Start one of the generator sets.
 - b. Use generator set VOLTAGE adjustable rheostat to adjust voltage to required value.
 - c. Using generator set frequency adjust control, adjust frequency to required value.
 - d. Set AC CIRCUIT INTERRUPTER switch on the operating generator set to CLOSED position.
5. Check switch box to make sure that GEN SET ON light (8 or 2) is lit for generator set just started.
6. Set switch box ON/OFF switch (6 or 4) below lit GEN SET ON light to ON position.

7. Check that switch box ON light (8 or 2) and ON LINE light (7 or 3) for operating generator set are both lit. The generator set is now supplying power to the connected load.
8. Observe frequency meter and readjust to proper frequency for load if required.
9. Refer to WP 0010, Table 1 and perform generator set "During" PMCS.

END OF TASK

Load Transfer.

1. For the generator set that is not operating:
 - a. Refer to WP 0010, Table 1 and perform the "Before" PMCS.
 - b. Check that switch box ON/OFF switch (Figure 8, Items 6 or 4) is at center position.
 - c. Check that switch box TRANSFER switch (5) is at bottom position.
 - d. Refer to TM 9-6115-641-10 and:
 - (1) Start the generator set.
 - (2) Use generator set VOLTAGE adjustable rheostat to adjust voltage to required value.
 - (3) Using generator set frequency adjust control, adjust frequency to required value.
 - (4) Set AC CIRCUIT INTERRUPTER switch to CLOSED position.
 - e. Check switch box controls and indicators (Figure 1) to ensure that:
 - (1) GEN SET ON light (8 or 2) and ON LINE light (7 or 3) is lit for generator set that has been supplying electric power to the load.
 - (2) GEN SET ON light (8 or 2) for generator set just started is lit.
 - f. Move switch box TRANSFER switch (5) in the direction of the arrow. All SYNCHRONIZING lights (1) should be going from bright to dark at the same time. If SYNCHRONIZING lights do not begin to function, report problem to next higher level of maintenance.
 - g. Refer to TM 9-6115-641-10 and:
 - (1) Slowly increase frequency of generator set that was just started. Continue until SYNCHRONIZING lights (1) go from bright to dark together at a rate of one or more times per second.
 - (2) Slowly decrease frequency of generator set that was just started. Continue until SYNCHRONIZING lights (1) blink together at a rate of once every three to four seconds.
 - h. When SYNCHRONIZING lights (1) are dark, hold the switch box ON/OFF switch (6 or 4) for the generator set that was just started to ON position until ON light remains on. Release the switch. The ON LINE light for the first generator set that was running should immediately go out.
 - i. Check switch box lights, as follows:
 - (1) The ON LINE light (7 or 3) should be lit for the generator set that was just started.
 - (2) The ON LINE light (7 or 3) for the other generator set should be off.
 - j. If lights fail to go on or off, repeat steps (7), (8) and (9). If lights do not function properly, report the problem to the next higher level of maintenance.
2. The second generator set is now supplying electric power to the connected load. All SYNCHRONIZING lights (1) should be dark.
3. Refer to TM 9-6115-641-10 and set AC CIRCUIT INTERRUPTER switch for generator set that is now off line to OPEN position.
4. Check that switch box ON/OFF switch (6 or 4) for the off line generator set is at center position.
5. Refer to TM 9-6115-641-10 and:
 - a. Shut down generator set that is now off line.

- b. Using generator set VOLTAGE adjustable rheostat, adjust voltage of generator set that is now on line to the desired value.
 - c. Using generator set frequency adjust control, adjust frequency of generator set that is now on line to desired value.
6. Refer to WP 0010, Table 1 and perform "After" PMCS for the generator set that was shut down.
 7. For the generator set that is now ON LINE, perform the PMCS listed as "During" in WP 0010, Table 1.

END OF TASK

Stopping Power Plant Set.

1. Set the switch box ON/OFF switch (Figure 8, Items 6 or 4) for the generator set to be stopped to OFF position.
2. Stop the generator set in accordance with TM 9-6115-641-10.
3. Perform the generator set PMCS listed as "After" in WP 0010, Table 1.

DECALS AND INSTRUCTIONS PLATES

AN/MJQ-35 Identification/Transportation Data Plate

Refer to Figure 9. This plate is located on rear of curbside fender.

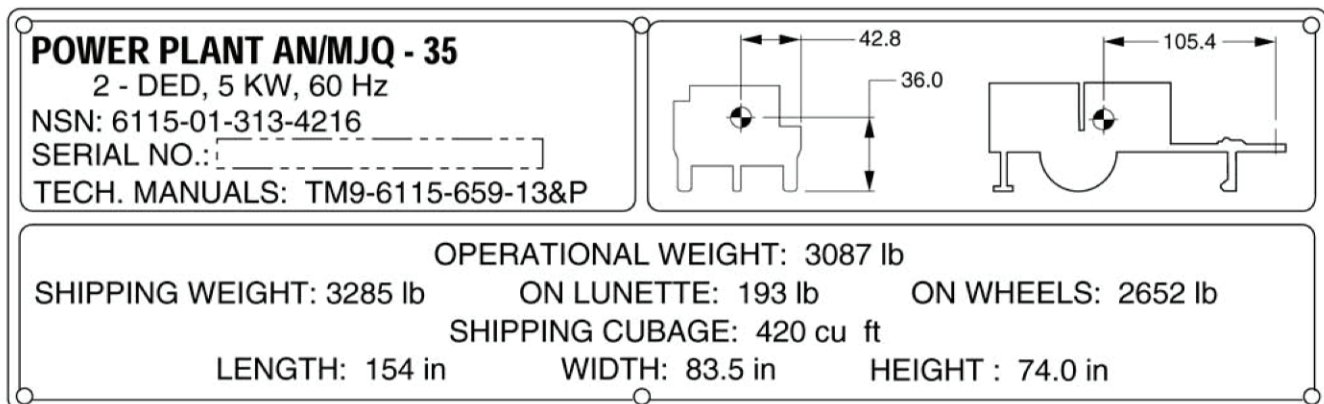


Figure 9. AN/MJQ-35 Identification/Transportation Data Plate.

AN/MJQ-36 Identification/Transportation Data Plate

Refer to Figure 10. This plate is located on front of roadside fender.

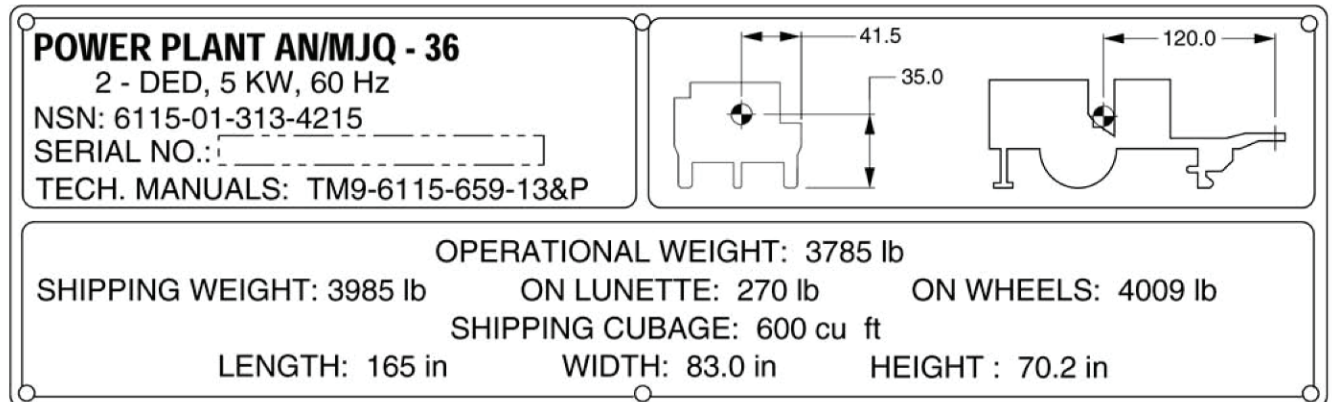


Figure 10. AN/MJQ-36 Identification/Transportation Data Plate.

PU-797 Identification/Transportation Data Plate

Refer to Figure 11. This plate is located on rear of curbside fender.

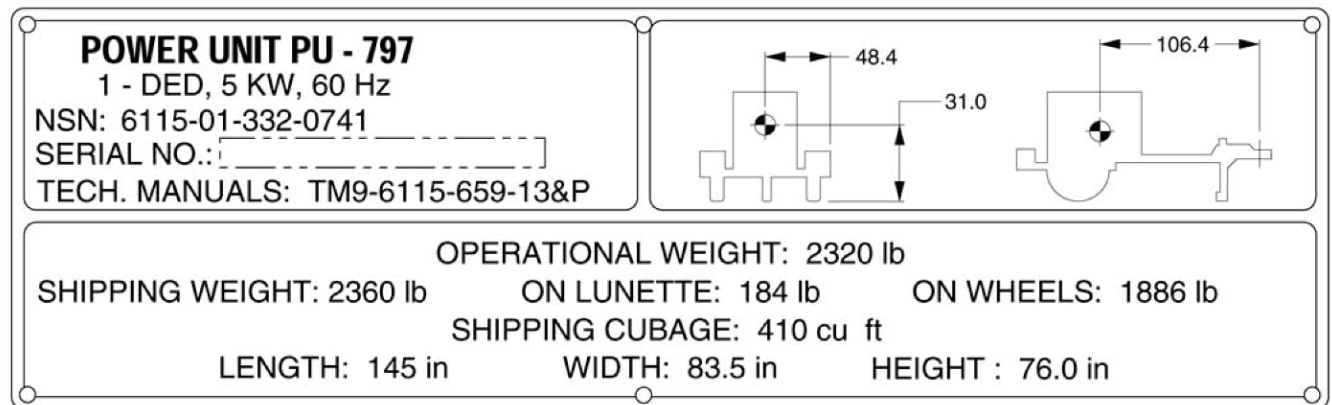


Figure 11. PU-797 Identification/Transportation Data Plate.

AN/MJQ-35A Shipping Data/Identification Plate

Refer to Figure 12. This plate is located on front of curbside fender.

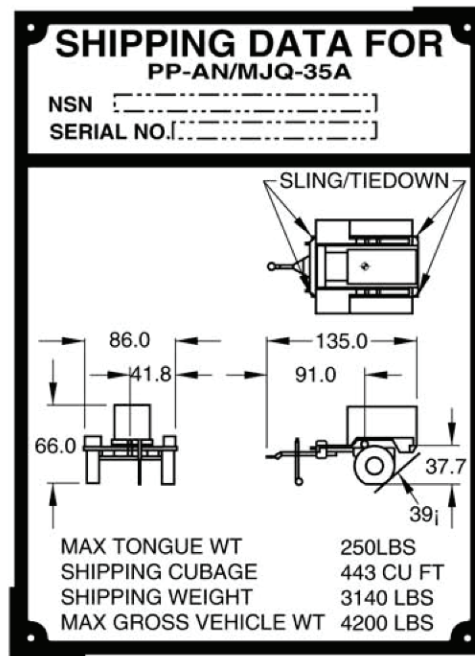


Figure 12. AN/MJQ-35A Shipping Data/Identification Plate.

PU-797A Shipping Data/Identification Plate

Refer to Figure 13. This plate is located on front of curbside fender.

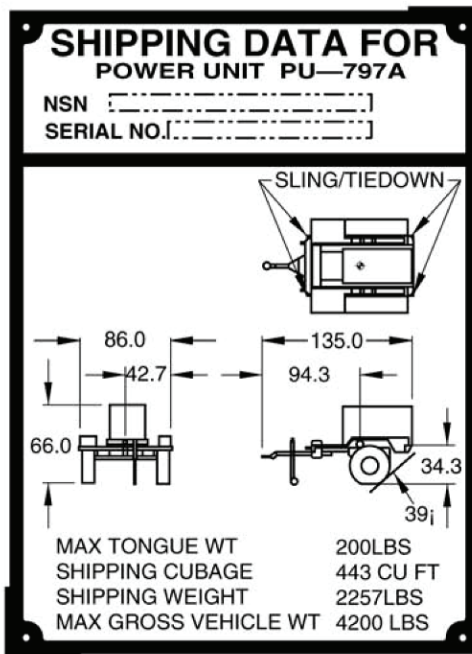


Figure 13. PU-797A Shipping Data/Identification Plate.

AN/MJQ-35A and PU-797A Trailer Chassis Identification Plate

Refer to Figure 14. This plate is located on curbside toe bar.

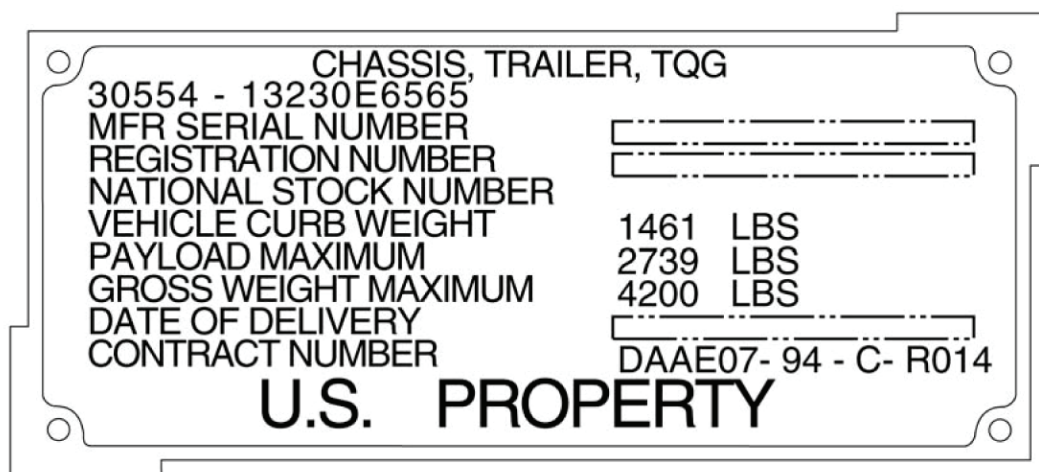


Figure 14. AN/MJQ-35A and PU-797A Trailer Chassis Identification Plate.

Power Plant Instruction Plate

This plate (Figure 15) covers operating procedures for power plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36. It is located on top of the switch box load terminal cover.

POWER PLANT OPERATING PROCEDURES**BEFORE OPERATION**

1. CHECK/SERVICE BOTH GEN SETS BEFORE OPERATING.
CONNECT "GND" TERMINAL TO GROUND.

OPERATING PROCEDURES

1. START EITHER GEN SET. ADJUST VOLTAGE AND FREQUENCY.
PUT "CKT BKR" SWITCH IN "CLOSED" POSITION.
2. SWITCH BOX "GEN SET" LIGHT SHOULD LIGHT. IF NOT, REFER TO TM.
3. AT SWITCH BOX, PLACE "ON-OFF" SWITCH TO "ON".
"ON LINE" LIGHT SHOULD LIGHT. IF NOT, REFER TO TM.

LOAD TRANSFER PROCEDURES, ONE SET OPERATING AS ABOVE.

1. START SECOND SET, ADJUST VOLTAGE AND FREQUENCY TO MATCH OPERATING SET.
2. ON SECOND SET, PLACE "CKT BKR" SWITCH IN THE "CLOSED" POSITION.
3. AT SWITCH BOX, "GEN SET" LIGHT FOR SECOND SET SHOULD LIGHT. IF NOT REFER TO TM.
4. AT SWITCH BOX, PLACE "TRANSFER" SWITCH TO "TRANSFER". BOTH "SYNCHRONIZING" LIGHTS SHOULD BE GOING FROM BRIGHT TO DARK TOGETHER.
5. ON SECOND SET, INCREASE FREQUENCY UNTIL "SYNCHRONIZING" LIGHTS BLINK TOGETHER ONE OR MORE TIMES PER SECOND. THEN DECREASE FREQUENCY UNTIL LIGHTS BLINK TOGETHER ONCE EVERY 3-4 SECONDS.
6. AT SWITCH BOX, WHEN BOTH LIGHTS ARE DARK, PLACE "ON-OFF" SWITCH FOR SECOND SET TO "ON".
7. "ON LINE" LIGHT FOR SECOND SET SHOULD LIGHT, "ON-LINE" LIGHT FOR OTHER SET SHOULD GO OFF.
(SECOND SET IS NOW SUPPLYING POWER AND "SYNCHRONIZING" LIGHTS SHOULD BE DARK).
8. AT FIRST SET, PLACE "CKT BKR" SWITCH TO THE "OPEN" POSITION AND SHUT THE SET DOWN.

Figure 15. Power Plant Instruction Plate.

Switch Box Identification Plate

The plate in Figure 16 is located on the left side of the Power Plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36 Switch Box.

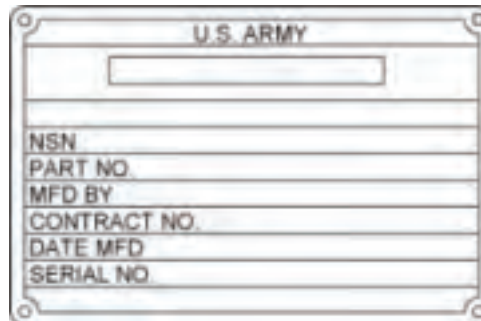


Figure 16. Power Plants AN/MJQ-35, AN/MJQ35A, and AN/MJQ-36 Identification Plate.

AN/MJQ-35 Item Unique Identification (IUID) Plate

Refer to Figure 17. This plate is located on front curbside fender below the Identification/Transportation Data Plate.

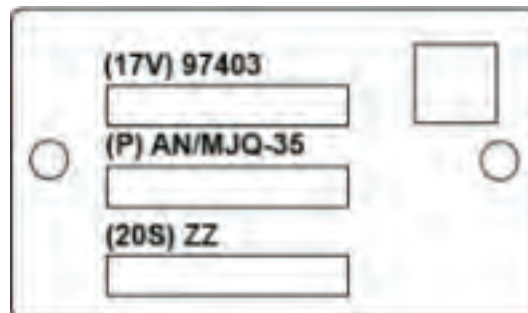


Figure 17. AN/MJQ-35 Item Unique Identification (IUID) Plate.

AN/MJQ-35A and PU-797A Item Unique Identification (IUID) Plates

Refer to Figure 18. The AN/MJQ-35A and PU-797A plates are located on the front curbside fender at the top left corner of the Shipping Data/Identification Plate.

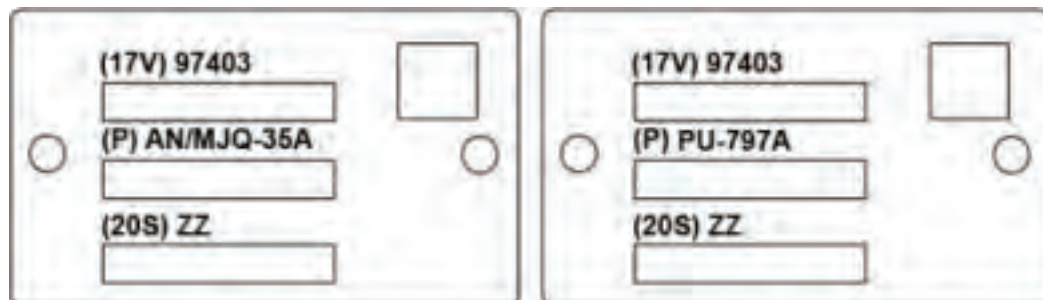


Figure 18. AN/MJQ-35A and PU-797A Item Unique Identification (IUID) Plates.

AN/MJQ-36 Item Unique Identification (IUID) Plate

Refer to Figure 19. This plate is located on front roadside fender under the AN/MJQ-36 Identification/Transportation Data Plate.

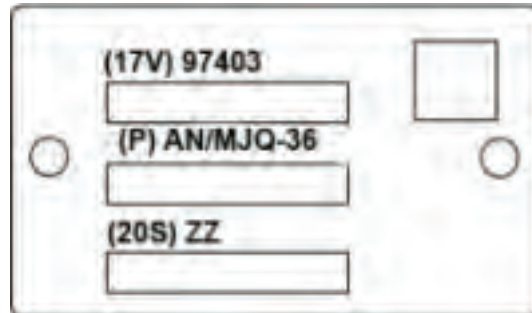


Figure 19. AN/MJQ-36 Item Unique Identification (IUID) Plate.

PU-797 Item Unique Identification (IUID) Plate

Refer to Figure 20. This plate is located on the rear curbside fender below the PU-797 Identification/Transportation Data Plate.

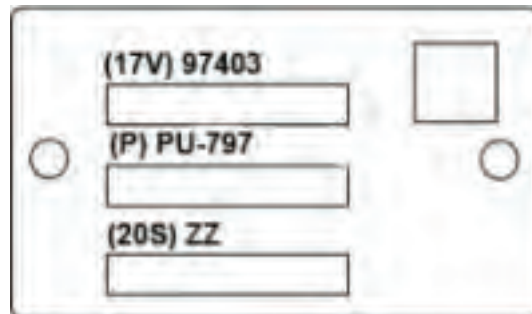


Figure 20. PU-797 Item Unique Identification (IUID) Plate.

Switch Box Item Unique Identification (IUID) Plate

The plates in Figure 21 are located on the right side of Power Plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36 Switch Box above the Identification Plate.

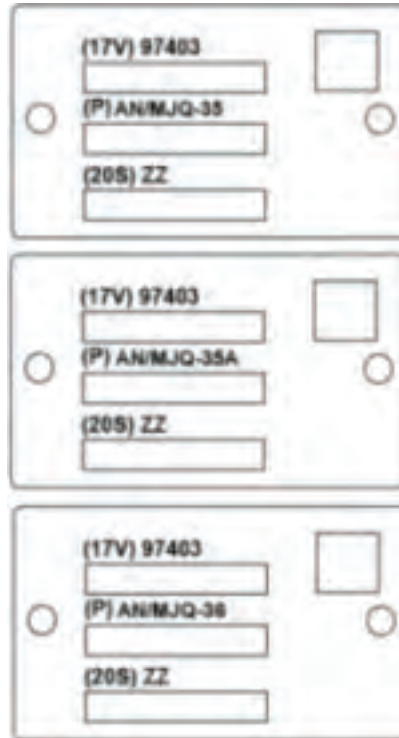


Figure 21. Switch Box Item Unique Identification (IUID) Plate.

PREPARATION FOR MOVEMENT

Shut Down Power Plant/Power Unit

If power plant/power unit is operating, stop generator set as follows:

Power Plant. Refer to Stopping Power Plant Set.

Power Unit.

1. Stop the generator set in accordance with TM 9-6115-641-10.
2. Perform the generator set PMCS listed as "After" in WP 0010, Table 1 in this TM.

END OF TASK

Disconnect Load Cables

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when this generator set is in operation. Do not contact output cables when operating this generator set. Failure to comply may cause injury or death to personnel.

1. For Power Unit configuration, refer to TM 9-6115-641-10 and disconnect load cables.
2. For Power Plant configuration where load cable is connected to switch box output connector, perform the following:
 - a. Disconnect load cable from switch box output connector (Figure 7, Item 6).
 - b. Install cap (5) on output connector (6).
 - c. Store load cable with equipment that was being supplied with electric power.
3. For Power Plant configuration where load cables are connected to switch box load terminals, perform the following:
 - a. Release both clamping catches (Figure 6, Item 4) and raise load terminal cover (2).
 - b. Using load terminal box wrench, loosen terminal nuts (1).
 - c. Disconnect load cables from switch box load terminals (3).
 - d. Store load cables with equipment that was being supplied with electric power.

END OF TASK

Retrieve Ground Cable and Rod

1. Remove wing nut (Figure 4, Item 1) and flat washer (2). Remove ground cable (3) from ground stud (4). Reinstall flat washer and wing nut on ground stud.
2. Loosen clamp (Figure 3, Item 9) and remove ground cable (8) from clamp.
3. Store ground cable in accessory box.
4. Remove slide hammer components from accessory box and assemble as follows:
 - a. If installed, remove nut (Figure 3, 6) from rod (4).
 - b. Place hammer (5) on rod (4).
 - c. Install nut (6) on rod (4) and tighten to end of threads.

WARNING

Impact disk must be tightened to end of threads on rod. Also, lock washer and nut must be tightened firmly against impact disk. Failure to comply with this warning can result in severe personal injury and/or damage to the equipment.

- d. Check that impact disk (3) is tightened to end of threads on rod (4). Tighten as needed.
 - e. Tighten nut (1) and lock washer (2) securely against impact disk (3).
5. Remove ground rod as follows:

CAUTION

Slide hammer rod and ground rod must make firm contact inside ground rod coupler. If not in firm contact, ground rod, coupler and slide hammer could be damaged.

- a. Refer to Figure 16 and position slide hammer above ground rod coupling (3). Invert slide hammer so that end having impact disk (1) is up. Connect slide hammer rod (2) to ground rod coupling (3). Tighten so that end of rod (2) makes firm contact with end of ground rod section (4) inside coupling (3).
 - b. Use slide hammer to pull ground rod section (4) out of ground. Pull until second coupling (3) is exposed.
 - c. Disconnect slide hammer from top coupling (3).
 - d. Disconnect top ground rod section (4) from bottom coupling (3).
 - e. Remove clamp (5) from ground rod (4). Store clamp in accessory box.
 - f. Connect slide hammer rod (2) to coupling (3) on ground rod section (4) still in ground.
 - g. Use slide hammer to pull second ground rod section (4) out of ground. Pull ground rod section (4) until third coupling (3) is exposed.
 - h. Repeat steps (3) through (5) for third ground rod section (4).
 - i. Use slide hammer to pull remaining ground rod section (4) out of ground.
 - j. Disconnect slide hammer rod (2) from ground rod coupling (3).
 - k. Remove couplings (3) from ground rod sections (4).

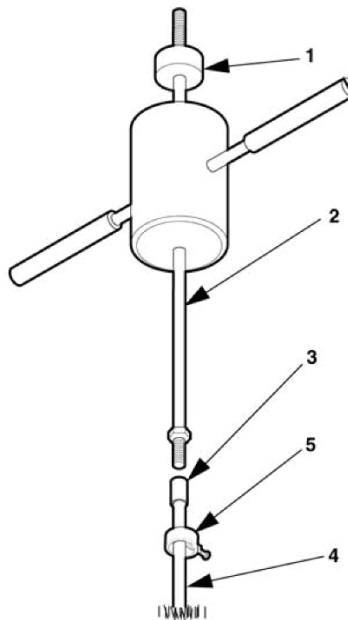


Figure 22. Remove Ground Rod.

6. Clean the couplings (3) and ground rod sections (4). Store cleaned items in accessory box.
7. Partially disassemble slide hammer as follows:
 - a. Remove nut (Figure 3, Item 6).
 - b. Remove hammer (5).
 - c. Loosely install nut (6).
8. Return slide hammer to its storage location in accessory box.

END OF TASK

Retrieve Fire Extinguisher(s)

Retrieve fire extinguisher(s) and stow in bracket(s) on trailer.

Disconnect External Fuel Source

WARNING

Fuel is combustible and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change soaked clothing promptly if exposed to fuel. Failure to comply may cause injury or death to personnel.

WARNING

Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment.

Disconnect auxiliary fuel hose as follows:

1. Disconnect the auxiliary fuel hose (Figure 17, Item 4) from the generator set external fuel supply connection (1). Elevate the free end of the auxiliary fuel hose to drain fuel back into the external fuel source (2). Place free end of auxiliary fuel hose on a clean surface.

2. Disconnect auxiliary fuel hose (4) from fitting on container adapter (3).
3. Store auxiliary fuel hose in the generator set storage compartment below the generator set control panel, behind the bottom-right access door.
4. Release the container adapter from the external fuel source by lifting the handle of the clamp (5). Remove the container adapter from the external fuel source. Close the external fuel source and load onto appropriate transportation.
5. Store the container adapter in the accessory box.

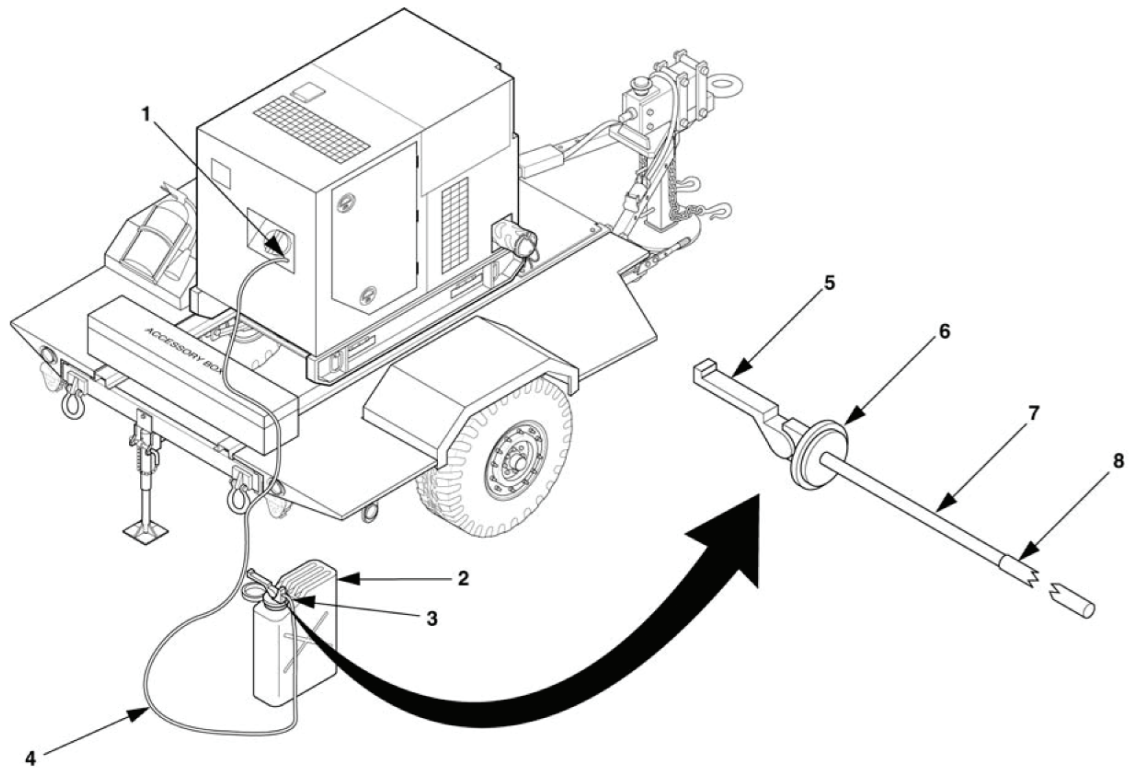


Figure 23. Disconnect Auxiliary Fuel (Typical).

END OF TASK

END OF WORK PACKAGE

OPERATOR MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****OPERATION UNDER UNUSUAL CONDITIONS**

INITIAL SETUP:**Tools and Special Tools**

N/A

Materials/Parts

Rag, wiping (WP 0114, Table 1, Item 7)

Personnel Required

Operator (1)

91D Assistant (1)

References

TB 9-6115-641-13

TM 9-6115-641-10

TM 9-6115-641-24

TM 9-2330-202-14&P (1 Ton Trailer)

TM 9-2330-213-14&P (1½ Ton Trailer)

TM 9-2330-392-14&P (Light Tactical Trailer)

Description and Use of Operator Controls and Indicators (WP 0004)

Operation Under Usual Conditions (WP 0005)

Troubleshooting Procedures (WP 0008)

Expendable and Durable Items List (WP 0115)

Equipment Condition

Both Sets: Trailer Support Devices Engaged (WP 0005)

Grounded IAW (WP 0005)

Engine Control Master Switch in OFF Position(WP 0005)

GENERATOR SETS

Refer to TM 9-6115-641-10.

TRAILER

Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

WINTERIZATION KIT

Refer to TB 9-6115-641-13, TM 9-6115-641-10, and TM 9-6115-641-24.

END OF WORK PACKAGE

CHAPTER 3

OPERATOR TROUBLESHOOTING PROCEDURES

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 3
OPERATOR TROUBLESHOOTING PROCEDURES

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Troubleshooting Index.....	0007
Operator Troubleshooting.....	0008

OPERATOR MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****OPERATOR TROUBLESHOOTING INDEX**

GENERAL INFORMATION**Generator Set**

Refer to TM 9-6115-641-10.

Trailer

Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

Power Plant

The following symptom index lists faults associated with switch box operation. Figures 1 through 5 provide a go/no-go flowchart of each malfunction. Each malfunction listed includes a reference to the applicable figure that contains a chart that will help you determine probable causes and corrective actions to take. The symptom index cannot list all faults that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify next higher level of maintenance.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

Malfunction/Symptom**Troubleshooting
Procedure****Symptom Index**

ON Indicator Lamp Fails to Light with Generator Set Running	Figure 1
ON-LINE Indicator Lamp Fails to Light When ON/OFF Switch is Placed in ON Position	Figure 2
SYNCHRONIZING Indicator Lamps Fail to Light when TRANSFER Switch is Operated	Figure 3
With All Indicator Lamps Working Properly, Load Will Not Transfer	Figure 4
SYNCHRONIZING Indicator Lamps Fail to Operate in Unison when Transfer Switch is Operated	Figure 5

END OF WORK PACKAGE

OPERATOR MAINTENANCE**5 kW 50/60 Hz TRAILER-MOUNTED POWER UNITS AND POWER PLANTS****OPERATOR TROUBLESHOOTING PROCEDURES**

INITIAL SETUP:**Test Equipment**

Multimeter (WP 0111, Table 2, Item 2)

Tools and Special Tools

Tool Kit, General Mechanics (WP 0111, Table 2, Item 9)

Personnel Required

Operator (1)

References

Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Usual Conditions (WP 0005)
Operation Under Unusual Conditions (WP 0006)
Troubleshooting Procedures (WP 0008)
PMCS Introduction (WP 0009)
PMCS (WP 0010)
Operator Maintenance: Repair or Replacement (WP 0012)
TM 9-6115-641-10

Equipment Condition

Both Sets: Trailer Support Devices Engaged (WP 0005)
Grounding of Power Unit/Power Plant (WP 0005)
Engine Control Master Switch in OFF Position (WP 0005)

TROUBLESHOOTING



END OF TASK

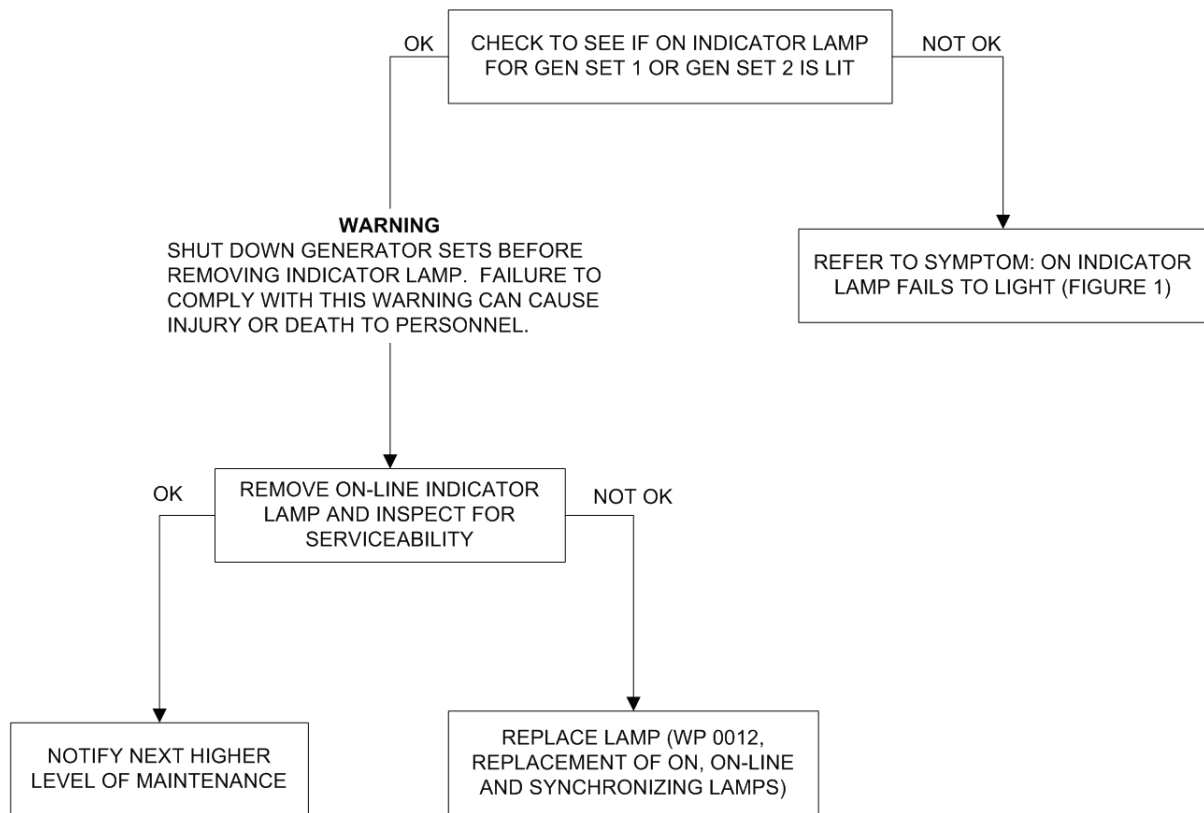


Figure 2. ON-LINE Indicator Lamp Fails to Light When ON/OFF Switch is Placed in ON Position.

END OF TASK

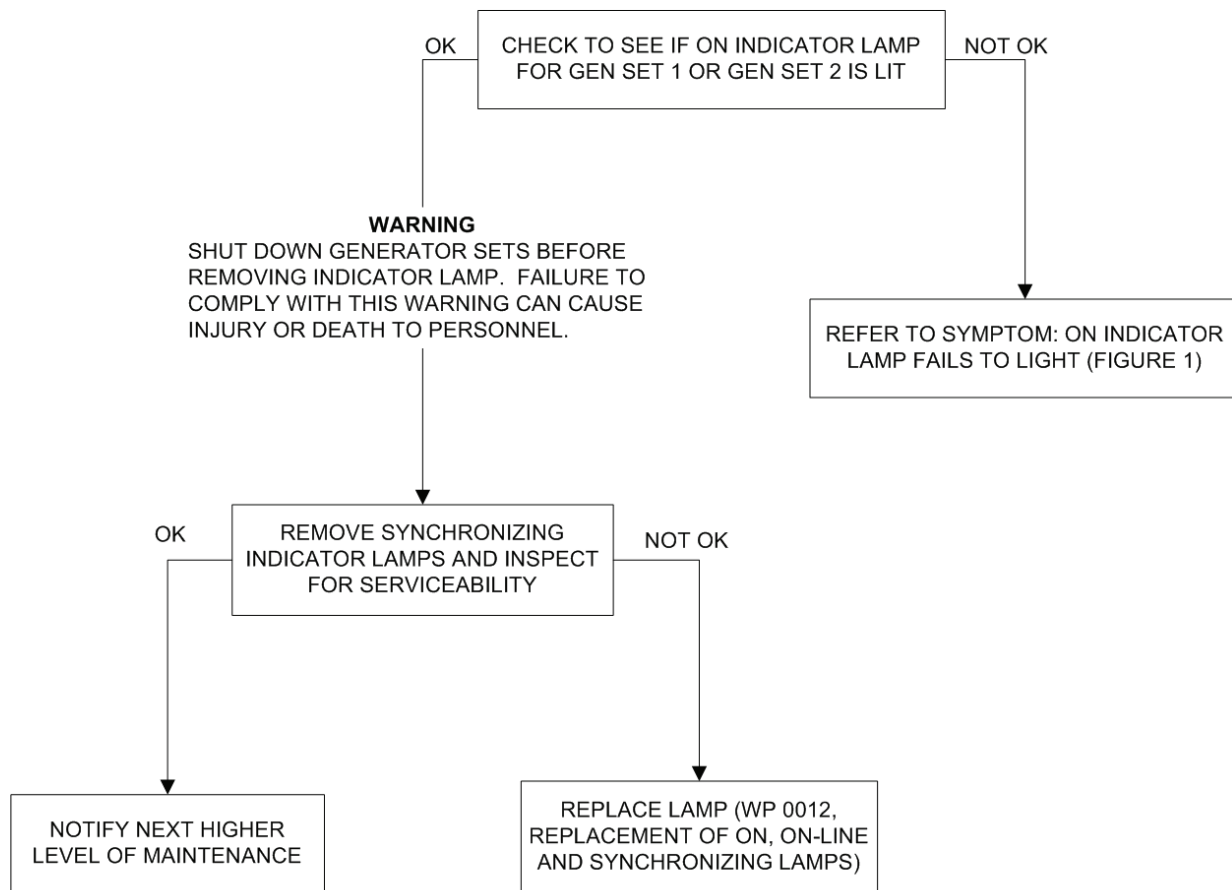


Figure 3. SYNCHRONIZING Indicator Lamps Fail to Light when TRANSFER Switch is Operated.

END OF TASK

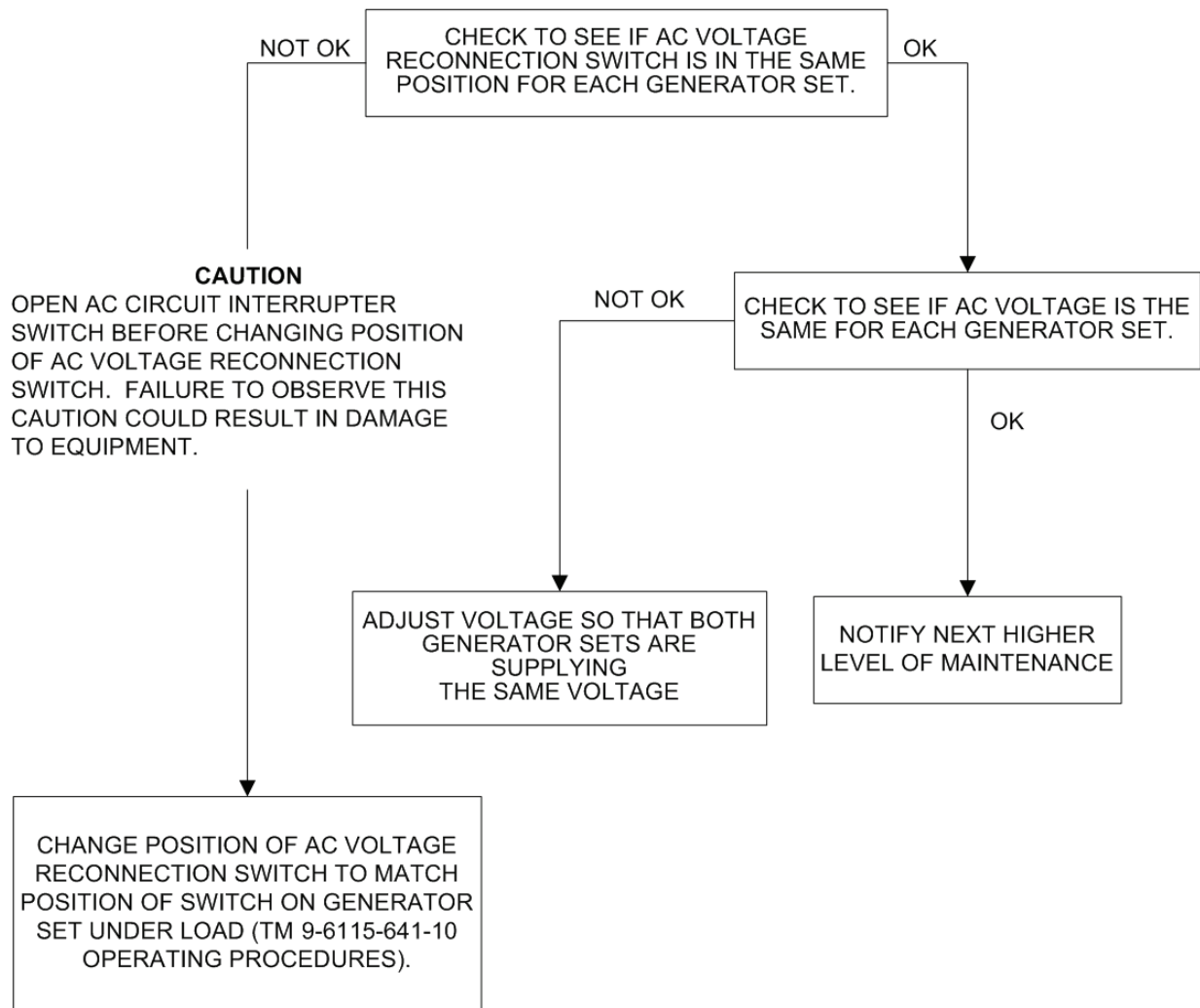


Figure 4. With All Indicator Lamps Working Properly, Load Will Not Transfer.

END OF TASK

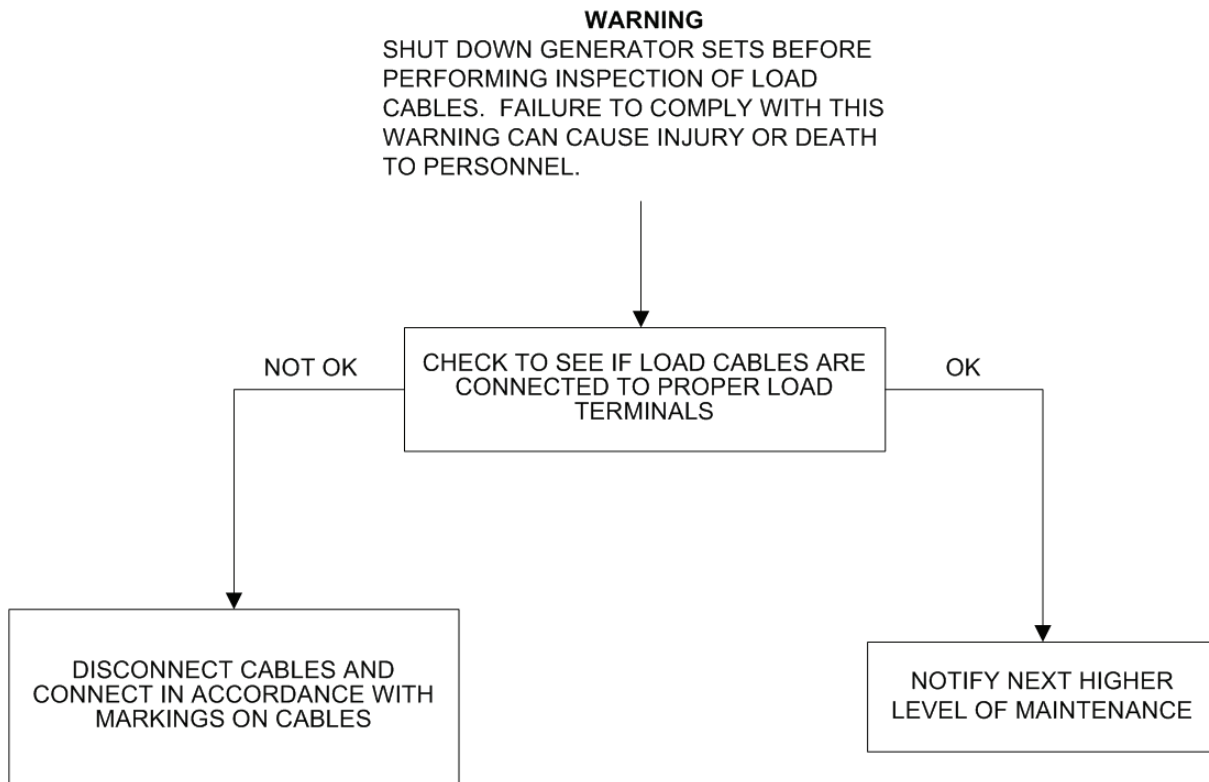


Figure 5. SYNCHRONIZING Indicator Lamps Fail to Operate in Unison when Transfer Switch is Operated.

END OF TASK

END OF WORK PACKAGE

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 4

OPERATOR MAINTENANCE INSTRUCTIONS

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Operator Preventive Maintenance Checks and Services (PMCS) Introduction	0009
Operator Preventive Maintenance Checks and Services (PMCS)	0010
Operator Lubrication.....	0011
Operator Maintenance: Repair or Replacement.....	0012

OPERATOR MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

OPERATOR PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION

INTRODUCTION TO OPERATOR PMCS TABLE

WP 0010 (PMCS Table 1) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

Warnings, Cautions, and Notes

Always observe the **WARNINGS**, **CAUTIONS**, and **NOTES** appearing in your PMCS table. Warnings and cautions appear before applicable procedures. You must observe **WARNINGS** to prevent serious injury to yourself and others. You must observe **CAUTIONS** to prevent your equipment from being damaged. You must observe **NOTES** to ensure procedures are performed properly.

Explanation of Table Entries

The PMCS table is divided into five columns. Each column is explained in the following paragraphs.

Item No. Column. Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.

Interval Column. This column tells you when you must do the procedure described in the procedure column. "BEFORE" procedures must be done before you operate the equipment for its intended mission. "DURING" procedures must be done during the time you are operating the equipment for its intended mission. "AFTER" procedures must be done immediately after you have operated the equipment. Perform "WEEKLY" procedures at the listed interval.

Location, Item to Check/Service Column. This column lists the location and the item to be checked or serviced. The item location is underlined.

Procedure Column. This column gives the procedure for checking or servicing the item listed in the location, item to check/service column. You must perform the procedure to know if the power unit or power plant is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.

Not Fully Mission Capable if: Column. Information in this column tells you what faults will keep your equipment from being capable of performing its primary mission. If you perform checks or services that show faults listed in this column, do not operate the equipment.

Other Table Entries

Be sure to observe all special information and notes that appear in your table.

Special Instructions

Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. Covering unused receptacles, stowing unused accessories, and performing other routine procedures such as equipment inventory, cleaning components, and touch-up painting are not listed in the table. These are things you should do any time you see that they need to be done. If a routine check is listed in the PMCS table, it is because experience has shown that problems may occur with this item. Take along tools and cleaning cloths needed to perform the required checks and services. Use the information in the following paragraphs to help you identify problems at any time and to help identify potential problems before and during checks and service.

Trailer PMCS. Trailer checks and services in the PMCS table are described as they are to be performed on a specific model trailer. Refer to WP 0001, Nomenclature Cross-Reference List to determine appropriate model number.

Generator Set PMCS. Generator set checks and services in the PMCS table are described as performed on a single generator set. The procedures must be performed on each of the generator sets that make up a power plant.

Routine Inspections. Use the following information to help identify potential problems before and during checks and Services.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.

WARNING

Solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to comply with this warning can cause severe personal injury and/or damage to equipment.

CAUTION

Keep cleaning solvents, gasoline, and lubricants away from rubber or soft plastic parts. They will deteriorate material.

1. Keep the generator set clean. Dirt, grease, and oil get in the way and may cover up a serious problem. Use cleaning solvent to clean metal surfaces.
2. Use soap and water to clean rubber or plastic parts and material.
3. Check all bolts, nuts, and screws to make sure they are not loose, missing, bent, or broken. Do not try to check them with a tool, but look for chipped paint, bare metal, or rust around bolt heads. If you find one loose, report it to the next-higher level of maintenance.
4. Inspect welds for loose or chipped paint, rust, or gaps where parts are welded together. If a broken weld is found, report it to the next-higher level of maintenance.
5. Inspect electrical wires, connectors, terminals, and receptacles for cracked or broken insulation, bare wires, and loose or broken connectors. Tighten loose connectors. Examine terminals and receptacles for serviceability. If deficiencies are found, report them to the next-higher level of maintenance.
6. Inspect hoses and fluid lines. Look for wear, damage, and leaks. Make sure that clamps and fittings are tight. Wet spots and stains around a fitting or connector can mean a leak. If a leak comes from a loose connector, or if something is broken or worn out, report it to the next-higher level of maintenance.

Leakage Definitions

You must know how fluid leakage affects the status of your equipment. The following are definitions of the types/classes of leakage you need to know to be able to determine the status of your equipment. Learn and be familiar with them. When in doubt, notify your supervisor.

Table 1. Leakage Definitions.

Leakage Class	Leakage Definition
Class I	Seepage of fluid (as indicated by wetness or discoloration) not great enough to form drops.
Class II	Leakage of fluid great enough to form drops, but not enough to cause drops to drip from the item being checked/inspected.
Class III	Leakage of fluid (other than fuel) greater than three drops per minute that fall from the item being inspected.

Operation of Power Unit/Power Plant with Minor Leaks

CAUTION

Equipment operation is allowable with minor leakage (Class I or II) of any fluid except fuel. Fluid capacity must be considered before deciding to continue operation of the equipment with minor leaks. When operating with Class I or II leaks, fluid level must be checked more often than required by the PMCS table. Parts without fluid will stop working and/or cause equipment damage.

1. Consider the equipment's capacity for the fluid that is leaking. If the capacity is small, the fluid level may soon become too low for continued operation. If in doubt, notify your supervisor.
2. Check the fluid level more often than required in the PMCS table. Add fluid as needed.

Corrosion Prevention and Control (CPC)

CPC of Army materiel is of continuing concern. It is important that any corrosion problems with the equipment be reported so that the problem can be corrected and improvements can be made to prevent the problem in future items. Although corrosion is typically associated with rusting of metals, it can also include deterioration of other materials, such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem. If a corrosion problem is identified, it can be reported using SF 368, Product Quality Deficiency Report. Use of key words such as "corrosion," "rust," "deterioration," or "cracking" will ensure that the information is identified as a CPC problem. The form should be submitted to the address specified in DA Pam 738-750.

Order in Which PMCS Will be Done

Figures 1, 2, 3, 4, and 5 show the order in which you are to perform your before operation PMCS. Figure 1, is for the AN/MJQ-35, Figure 2, is for the AN/MJQ-36, Figure 3, is for the AN/MJQ-35A, Figure 4, is for the PU-797A, and Figure 5, is for the PU-797. Call outs on Figures 1, 2, and 3 for one Power Plant generator set apply to both of the Power Plant generator sets.

NOTE

The item numbers in Figures 1, 2, 3, 4 and 5 correspond to the item number column in WP 0010, Table 1.

NOTE

The item numbers called out in the illustrations within WP 0010, Table 1 refer only to the illustrations located within WP 0010, Table 1 itself.

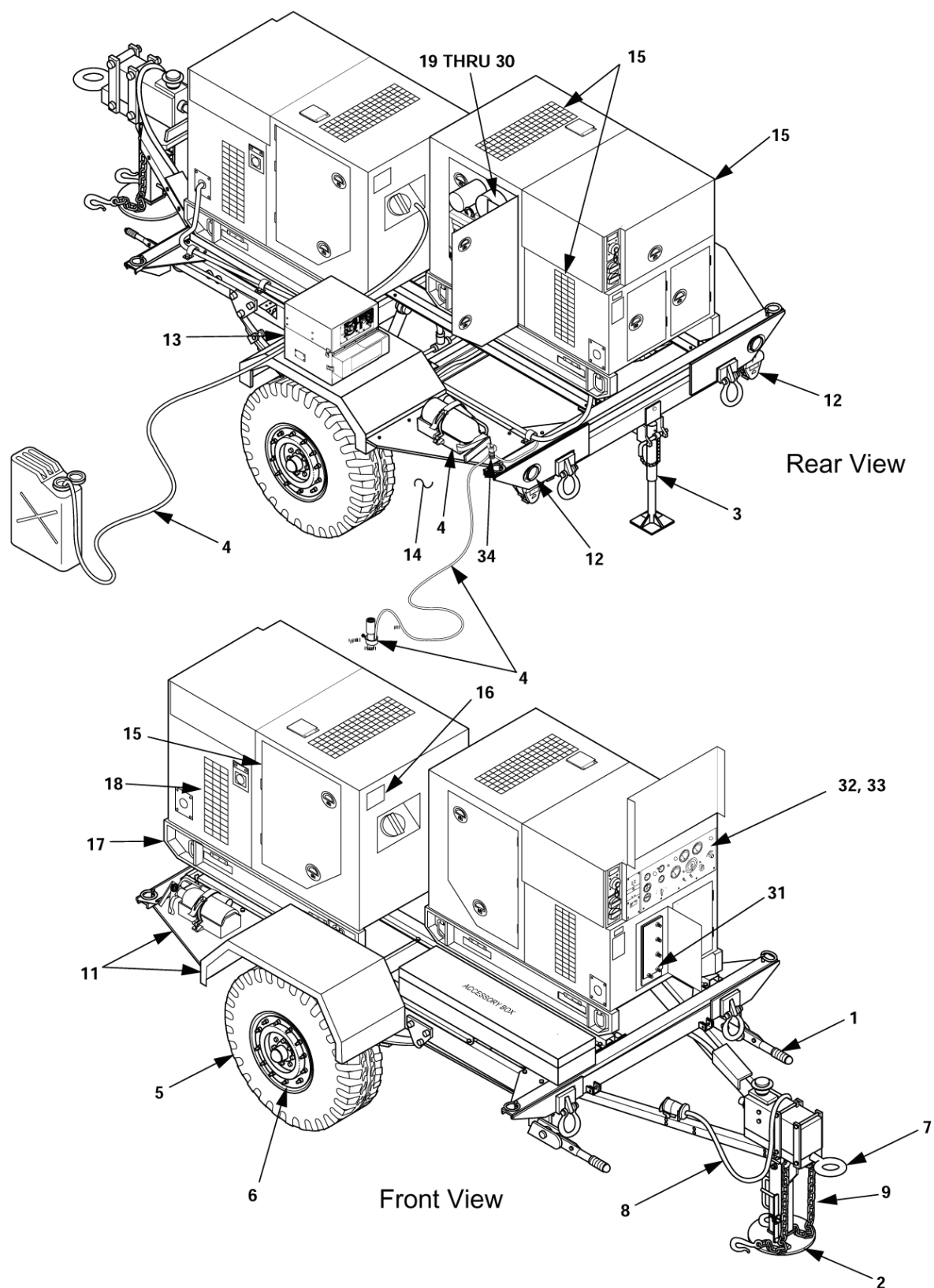


Figure 1. Power Plant AN/MJQ-35 Operator PMCS Routing Diagram.

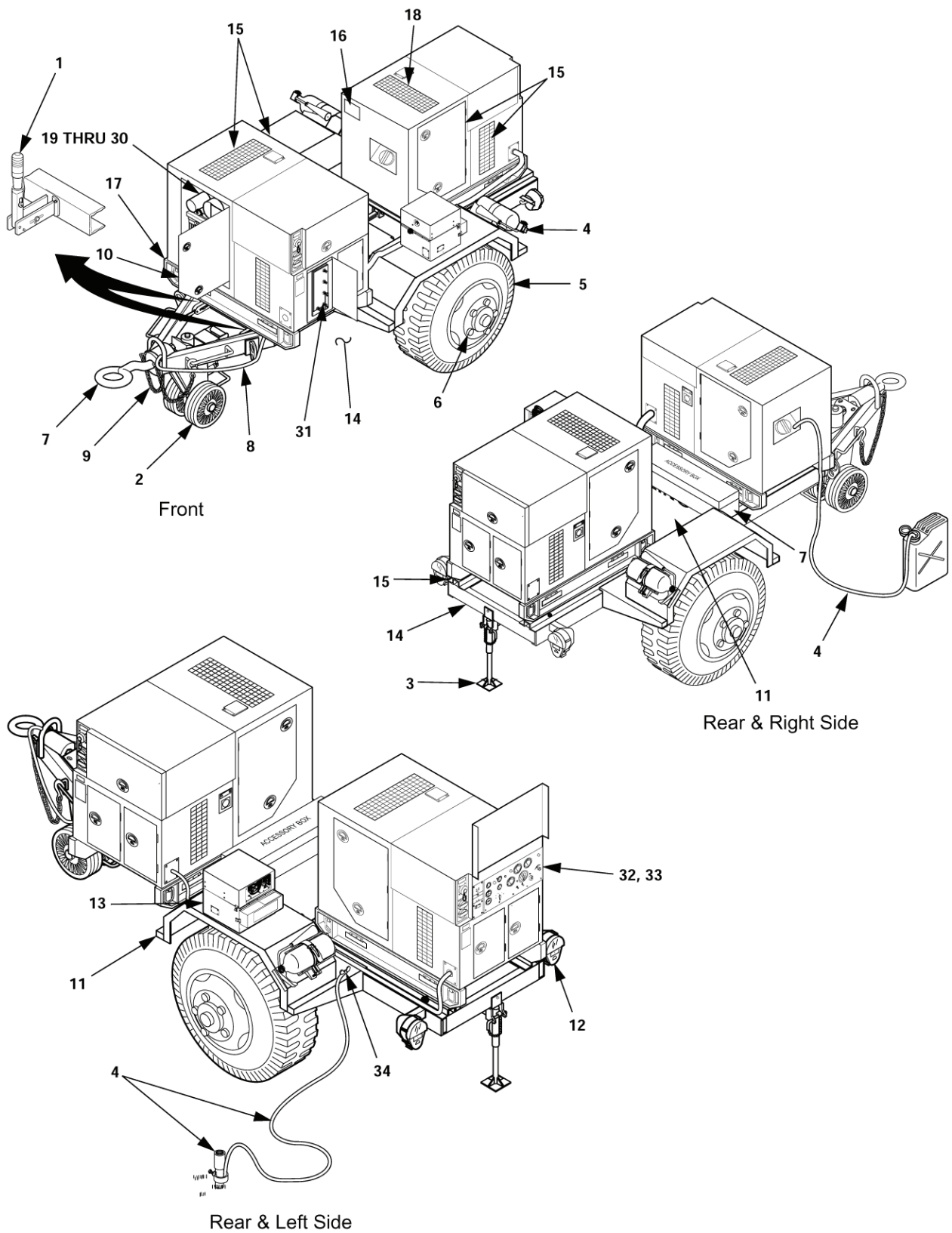


Figure 2. Power Plant AN/MJQ-36 Operator PMCS Routing Diagram.

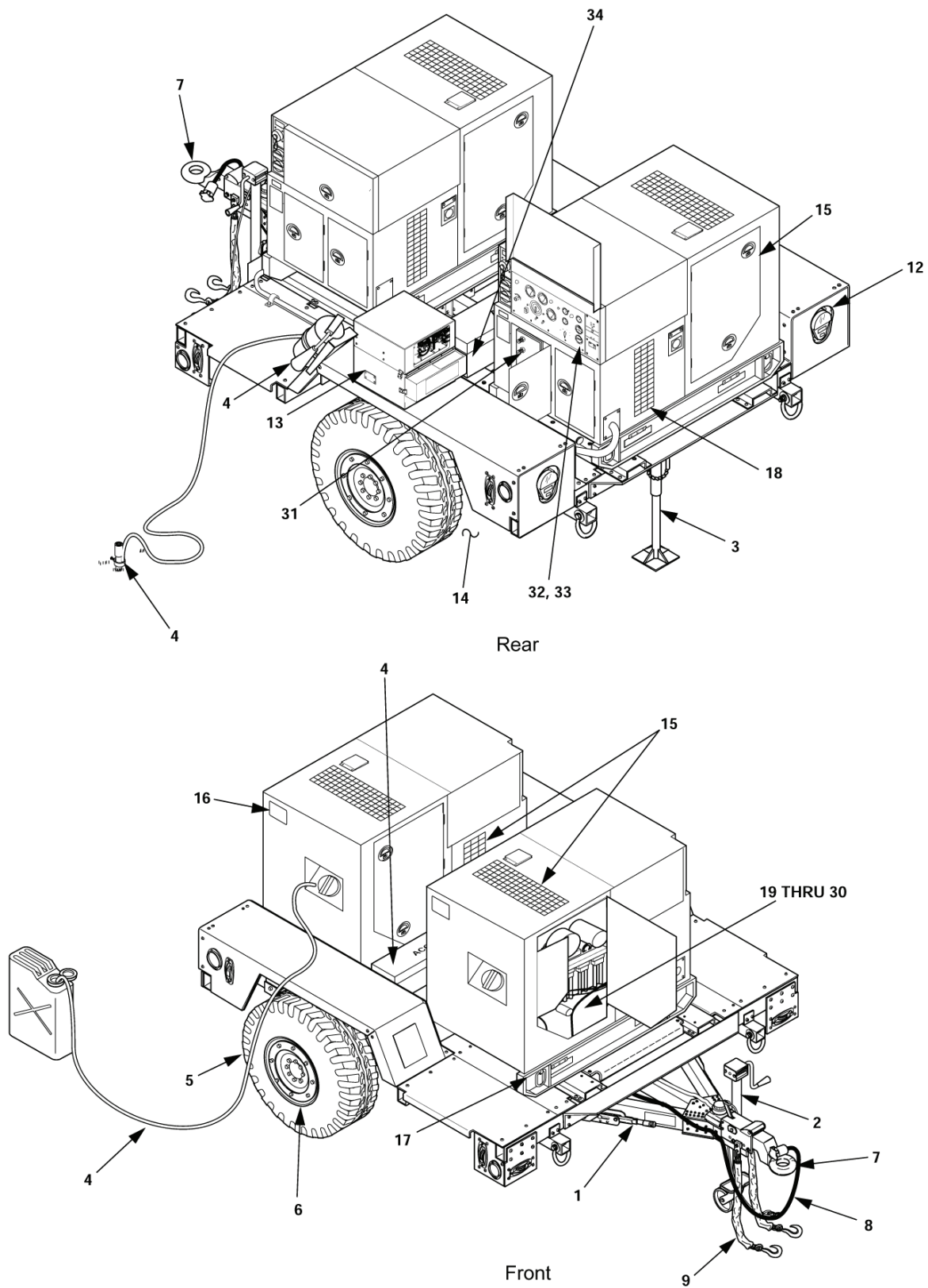


Figure 3. Power Plant AN/MJQ-35A Operator PMCS Routing Diagram.

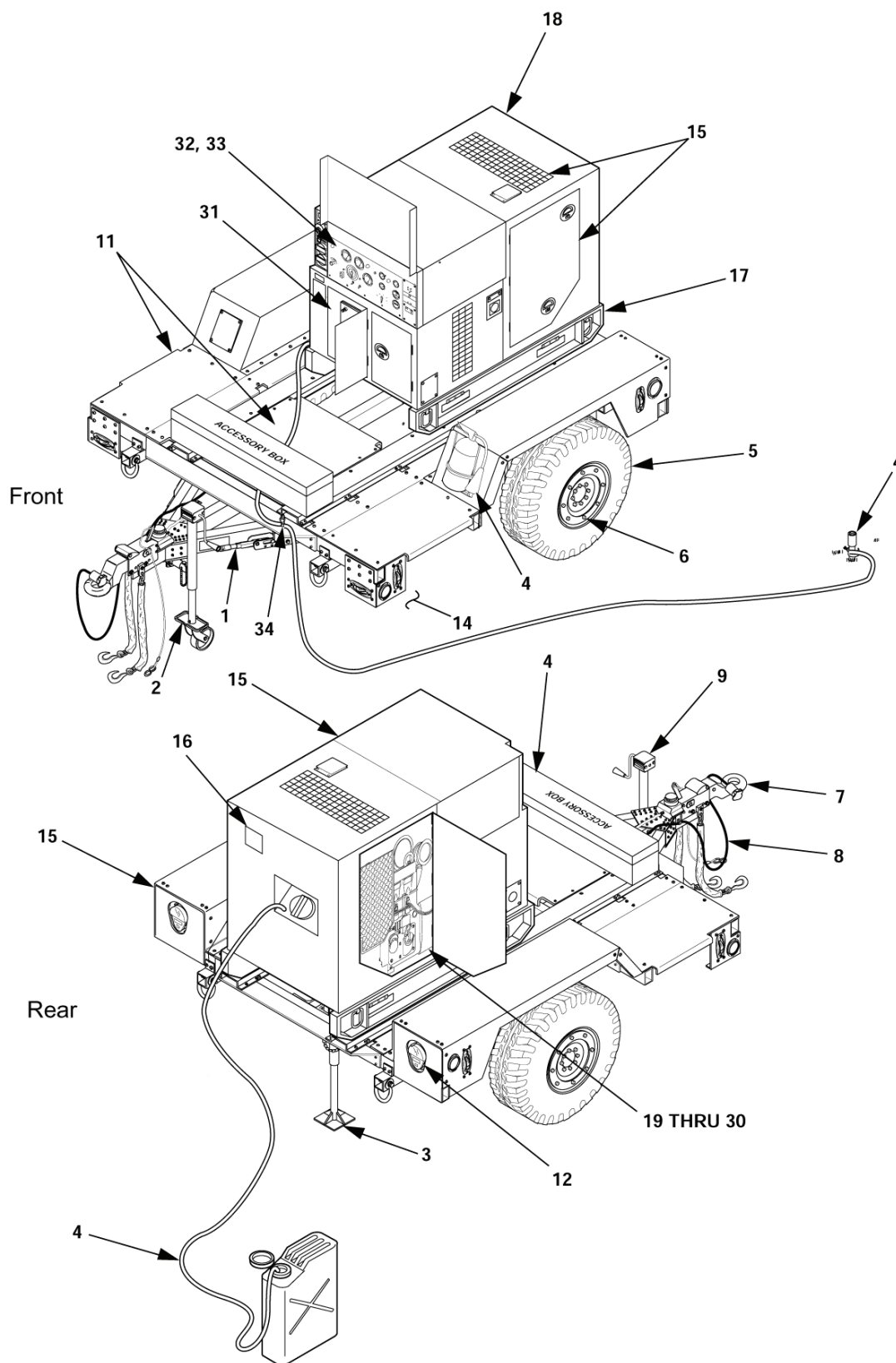


Figure 4. PU-797A Power Unit Operator PMCS Routing Diagram.



0009-8

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

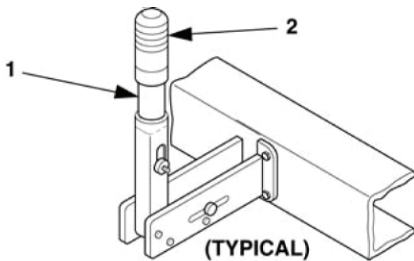
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING In extremely cold weather, skin can stick to metal. Avoid contacting metal items with bare skin in extremely cold weather. Failure to comply may cause injury or death to personnel.				
2	Before	HANDBRAKES	a. Check for proper operation of handbrake lever (1). Handbrake lever should move freely throughout its entire travel. b. Check for proper adjustment of handbrake lever (1). Handbrake lever is properly adjusted when additional force is required to move handbrake lever beyond two-thirds distance of travel toward the applied position. If improperly adjusted, refer to step d. c. With trailer hooked to towing vehicle, set the handbrake lever (1). Move the trailer slightly to see if the handbrake holds the wheels. If not, proceed to step d.	Handbrake lever (1) is locked in the applied position.
 (TYPICAL) WARNING If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked. Failure to comply with this warning can cause trailer to roll, resulting in severe personal injury and damage to equipment. NOTE Both handbrake levers (1) are adjusted the same way. This procedure covers one handbrake.				

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
			d. Handbrake Lever Adjustment (1). Release handbrake lever (1). (2). Turn adjustment knob (2) clockwise to tighten or counterclockwise to loosen. If unable to adjust, or adjustment has been used up, refer to Field Level Maintenance. (3). Check adjustment (Refer to step b). Repeat steps (1) and (2) as required. Repeat step c.	
3	Before	LANDING LEG ASSEMBLY	Check for loose, missing, damaged, or corroded parts, and for any unusual signs of deterioration. a. With trailer connected to towing vehicle, check landing leg assembly (3) for ease of operation. b. Check landing leg assembly (3) for proper mounting, alignment, and general condition. c. Ensure landing leg assembly (3) can be locked in stored and support positions. d. Ensure locking lever (4) moves freely. e. Ensure landing leg foot or wheels (5) can be adjusted up and down.	Landing leg assembly will not secure in stored position or will not support trailer.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

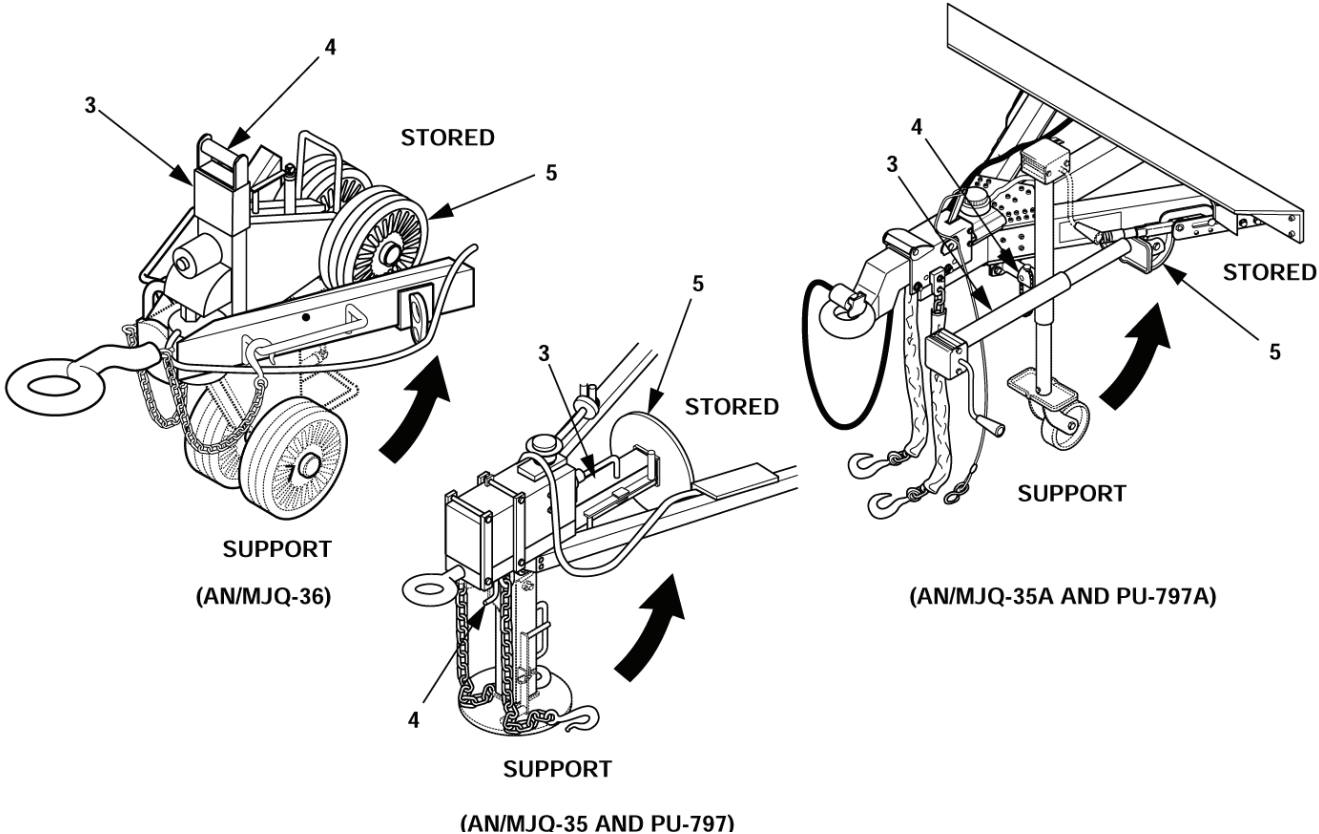
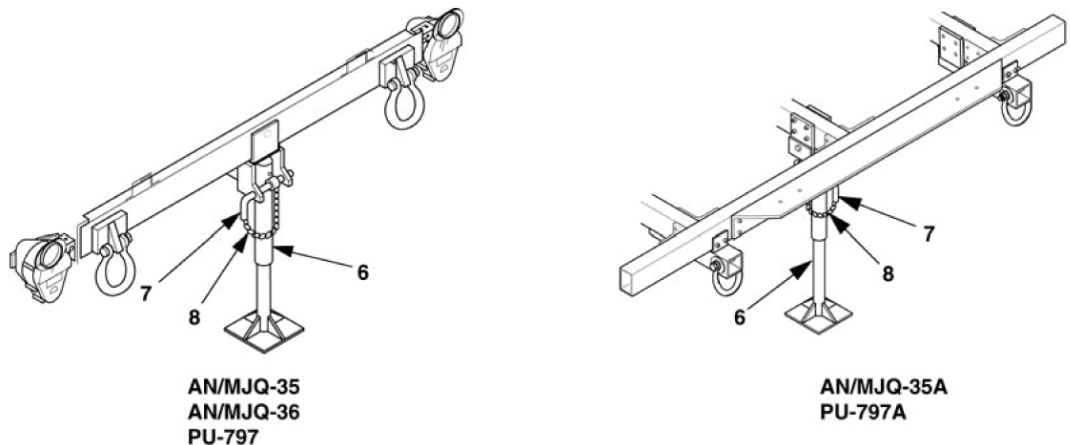
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
 (AN/MJQ-36) (AN/MJQ-35 AND PU-797) (AN/MJQ-35A AND PU-797A)				
4	Before	REAR LEVELING-SUPPORT JACK	- Check rear leveling-support jack (6) for ease of operation and secure mounting. - Ensure rear leveling-support jack can be locked in stored and support positions. - Ensure locking pin (7) is attached to leg with chain (8). - Ensure leveling-support jack foot can be adjusted up and down.	Rear leveling-support jack will not secure in stored position or will not support trailer.
 AN/MJQ-35 AN/MJQ-36 PU-797 AN/MJQ-35A PU-797A				

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:																		
5	Before	ACCESSORIES	Check that following accessories are not missing or damaged: • Auxiliary fuel hose(s) (stored in storage box inside right access door under control box on generator). • Fire extinguisher(s), check seal (stored in fire extinguisher bracket on fender). • Check accessory box for damaged or missing components.	Fire extinguisher is missing, seal is broken.																		
NOTE Remaining accessories are stored in accessory box.																						
			• Container adapter • Ground rod • Hammer, 8 lb • Load terminal wrench • Slide hammer • Ground cable																			
6	Before	TIRES	a. Check tires (9) for cuts, bruises, bulges, or unusual tread wear. Remove any foreign objects from between treads. b. Check tire pressure when tires are cool, as follows: <table><tr><td></td><td><u>Power Plant</u></td><td><u>Power Unit</u></td></tr><tr><td></td><td>AN/MJQ-35</td><td>PU-797</td></tr><tr><td></td><td>AN/MJQ-35A</td><td>PU-797A</td></tr><tr><td></td><td>AN/MJQ-36</td><td></td></tr><tr><td>Highway</td><td>35 psi</td><td>35 psi</td></tr><tr><td></td><td>(241.3 kPa)</td><td>(241.3 kPa)</td></tr></table>		<u>Power Plant</u>	<u>Power Unit</u>		AN/MJQ-35	PU-797		AN/MJQ-35A	PU-797A		AN/MJQ-36		Highway	35 psi	35 psi		(241.3 kPa)	(241.3 kPa)	Tires are unserviceable. Tires will not hold pressure.
	<u>Power Plant</u>	<u>Power Unit</u>																				
	AN/MJQ-35	PU-797																				
	AN/MJQ-35A	PU-797A																				
	AN/MJQ-36																					
Highway	35 psi	35 psi																				
	(241.3 kPa)	(241.3 kPa)																				

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

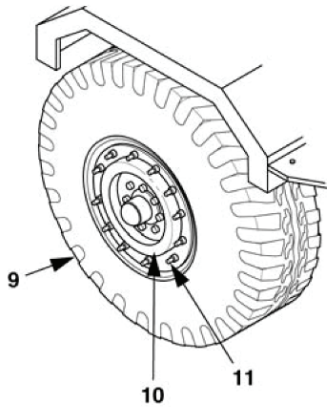
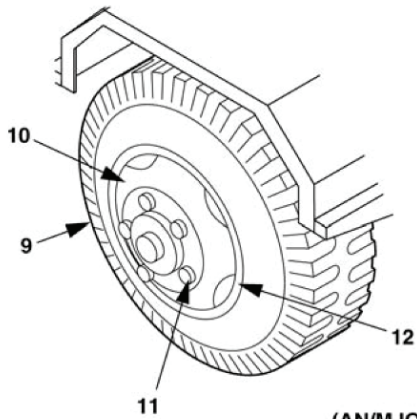
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
 (AN/MJQ-35 AND PU-797)  (AN/MJQ-36)				
7	Before	WHEELS	a. Check wheels (10) for damage and for leakage around flange gasket. b. Check if stud nuts (11) are loose or missing.	Wheel is damaged. One stud nut is loose or missing.
WARNING Do not attempt to seat a lockring when tire is inflated. Improperly seated lockring could fly off. Failure to comply can cause severe personal injury to personnel.				
			c. Model AN/MJQ-36 only, check for proper mounting of wheel assembly lockring (12).	Lockring not properly seated.
8	Before	DRAWBAR RING	Check drawbar ring (13) for secure mounting and obvious damage.	Ring is loose or bent.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
(AN/MJQ-36) (AN/MJQ-35 AND PU-797) (AN/MJQ-35A AND PU-797A)				
9	Before	INTERVEHICULAR CABLE	a. Check intervehicular cable (14) for cuts and breaks. b. Open protective cover (15). Inspect for broken, missing, and burnt pins (16).	Cable is severed or missing.
10	Before	SAFETY CHAINS	Check safety chains (17) for secure mounting and obvious damage.	Chain is missing or unsecured.
11	Before	AIR HOSE AND COUPLER (AN/MJQ-36 ONLY)	a. With trailer hooked to towing vehicle, check air hose (18) for leaks, cuts, and abrasions. b. Check coupler body (19) for damage. Check if seal (20) is missing or damaged.	Air leaks are found or hose is cut deep enough for cords to show. Coupler body is cracked or broken. Seal is missing.
12	Before	FENDERS-ALL MODELS PLATFORMS-ALL MODELS EXCEPT AN/MJQ-35 SPLASH GUARDS AN/MJQ-35 ONLY	Check for damaged, loose, or missing hardware.	Damage is to extent where it poses a safety hazard or prevents trailer from being towed.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

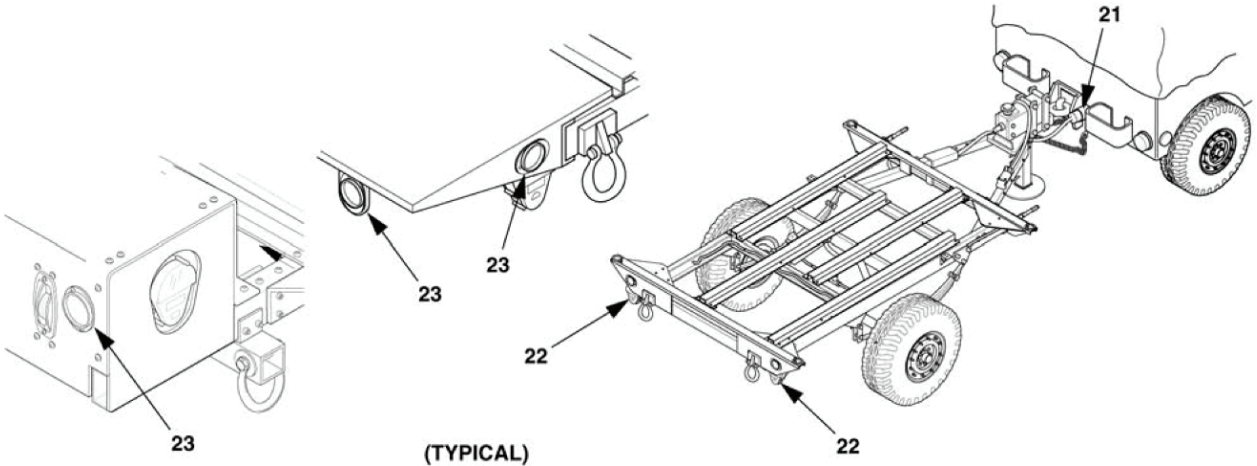
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
13	Before	LIGHTS AND REFLECTORS	a. Check for obvious damage or looseness of lights, lenses, and reflectors.	Lights are not serviceable.
NOTE An assistant is required while checking the brake lights.				
			b. Connect the intervehicular cable (21) to the towing vehicle. c. Operate the vehicle light switch through all settings and check the lights (22). d. Check for damage and presence of reflectors (23).	
 (TYPICAL)				
14	Before	SWITCH BOX ASSEMBLY (POWER PLANTS ONLY)	a. Check for loose or missing mounting hardware. b. Check for damaged indicator lights. c. Check hinges and clamping catches. d. Check for loose or damaged switches. e. Check output terminals and connectors for damaged or missing hardware.	Two or more mounting bolts missing. Indicator lights are damaged. Switches loose or damaged. Output terminals or connectors will not properly secure load cables. Cable is missing or broken.
15	Before	HYDRAULIC BRAKES	Check for leakage of brake fluid from master cylinder (24), hydraulic brake lines and fittings (25), and backing plates (26).	Brake system any leak.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

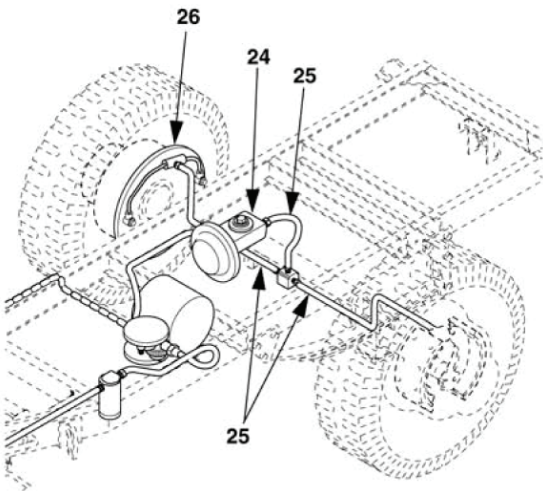
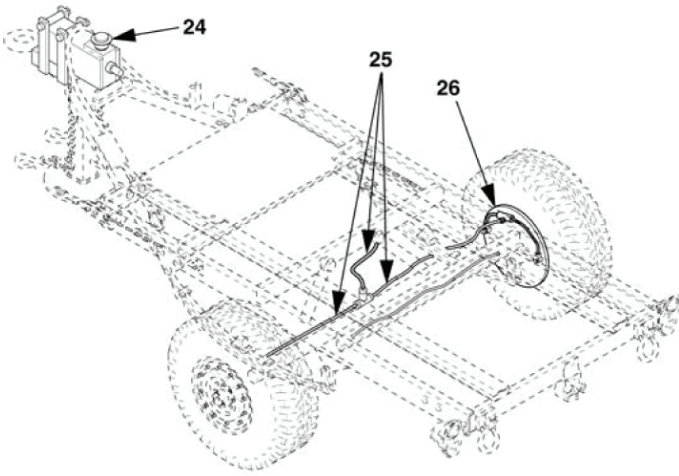
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
 (AN/MJQ-36)  (AN/MJQ-35 AND PU-797) (AN/MJQ-35A AND PU-797A)				
		GENERATOR SET ASSEMBLY		
NOTE If the equipment must be kept in continuous operation, check and service only those items that can be checked and serviced without disrupting operations. Complete all checks and services when equipment is shut down.				
16	Before	HOUSING	a. Check doors (27), panels (28), hinges (29), and latches (30) for damaged, loose, or corroded items. b. Inspect air intake and exhaust grills (31) for debris.	Cannot secure door.
NOTE Check all data plates.				
17	Before	IDENTIFICATION PLATES	Check to ensure identification plates (32) are secure and legible.	
18	Before	SKID BASE	Inspect skid base (33) for cracks and corrosion.	Skid base is cracked or shows signs of structural damage.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

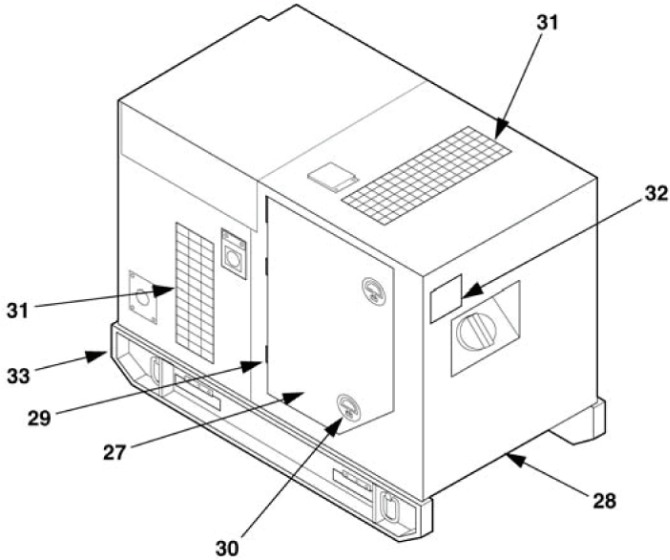
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
19	Before	ACOUSTICAL MATERIAL	Ensure acoustical materials, located in the grill areas and under the engine, are secure, not damaged, or missing.	
WARNING Operating generator set with unit doors open or panels removed exposes personnel to a high noise level. Close unit doors and replace panels or wear hearing protection while operating or working near a running generator set. Failure to comply may cause injury. WARNING Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment.				
20	Before	ENGINE ASSEMBLY	a. Visually inspect the generator set for fuel, oil, and coolant leaks. Check for proper ground connections. b. Visually inspect the engine for missing, loose, or damaged parts and hardware, and for unusual wear or deterioration.	Any fuel leaks. Any Class III oil or coolant leaks. Any condition that renders power unit/power plant not mission capable.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

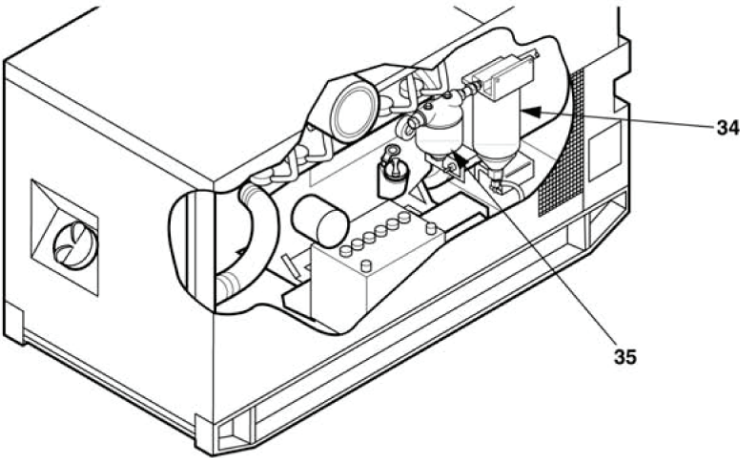
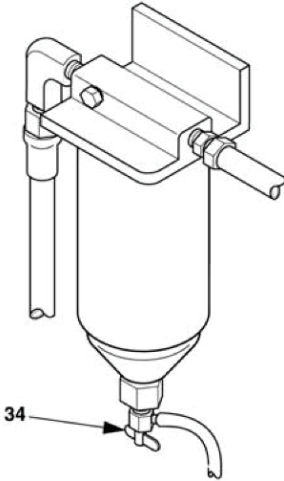
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
21	Before	FUEL SYSTEM	Inspect for leaks, damaged, loose, or missing hardware.	Any fuel leaks, damaged, loose, or missing parts.
22	Before	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator (34) and fuel filter (35) for leaks, proper mounting, cracks, damage, or missing parts. b. Drain water from fuel filter/water separator (34).	Any fuel leaks.
				
23	Before	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, damaged, loose, or missing parts. b. Check oil level (36). Add oil as necessary. c. Check engine oil for contamination.	Class III leaks, damaged, loose, or missing parts. Engine oil shows signs of contamination.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

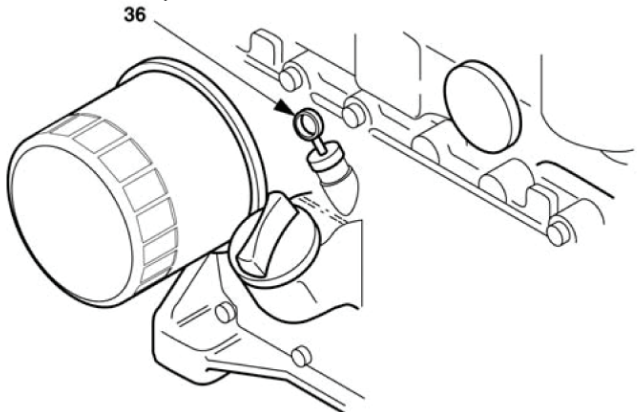
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
WARNING Cooling system operates at high temperature and pressure. Contact with high-pressure steam and/or liquids can cause burns and scalding. Shut down generator set and allow system to cool before performing checks, services, and maintenance. Wear gloves, additional protective clothing, and goggles as required. Contact with high-pressure steam and/or liquids can cause burns and scalding. Failure to comply may cause injury or death to personnel.				
24	Before	RADIATOR	Check radiator (37) for leaks, damaged, or missing parts.	Class III leaks. Radiator cap missing.
25	Before	HOSES	Check hoses (38) for leaks and cracks.	Class III leaks.
26	Before	COOLING FAN	Check fan (39) for damage or looseness.	Damaged or loose.
27	Before	FAN BELT	Inspect belt (40) for cracks, fraying, or looseness.	Broken belt.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

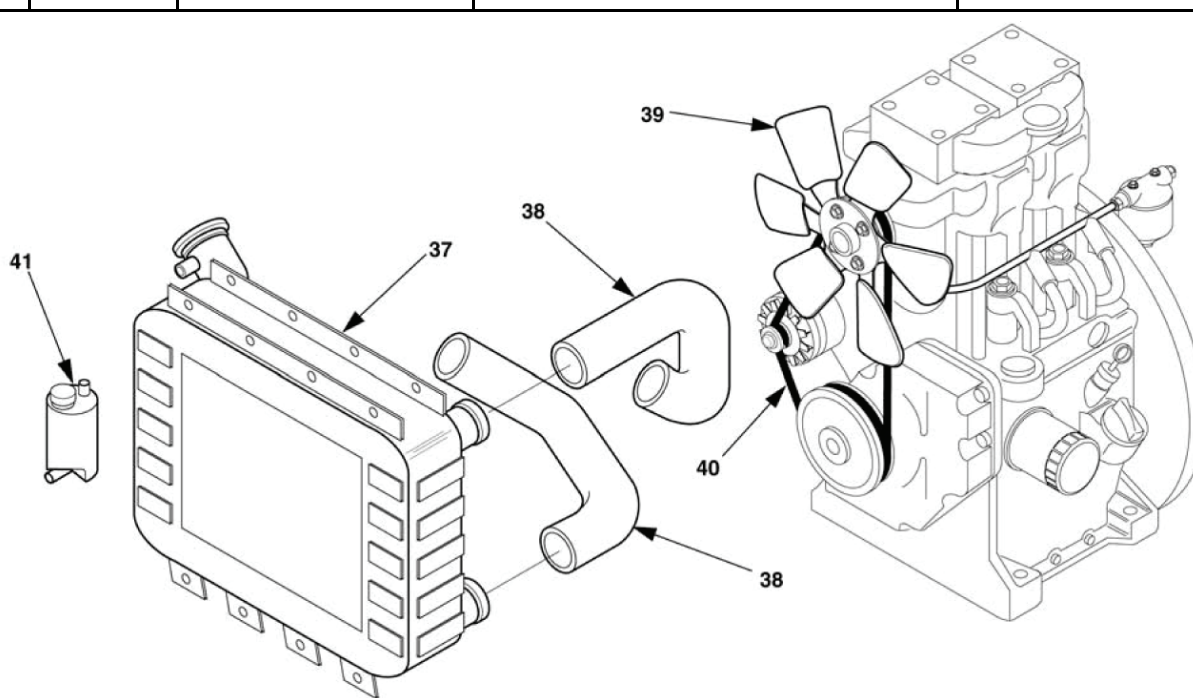
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
28	Before	OVERFLOW BOTTLE	Check overflow bottle (41) for leaks or missing parts. Check coolant level.	Class III leaks.
WARNING Exhaust discharge contains deadly gases, including carbon monoxide. Do not operate generator set in an enclosed area unless exhaust discharge is properly vented. Failure to comply may cause injury or death to personnel.				
29	Before	EXHAUST SYSTEM	Check muffler (42) for leaks and exhaust system for corrosion, damaged, or missing parts.	Muffler or exhaust system damaged or leaking.
30	Before	AIR CLEANER ASSEMBLY	a. Inspect air cleaner assembly (43) and piping (44) for loose or damaged connections. b. Inspect restriction indicator (45) for clogged element. If indicator shows red, notify next higher level of maintenance.	Loose or missing parts. Clogged element is indicated or piping and connections are loose.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

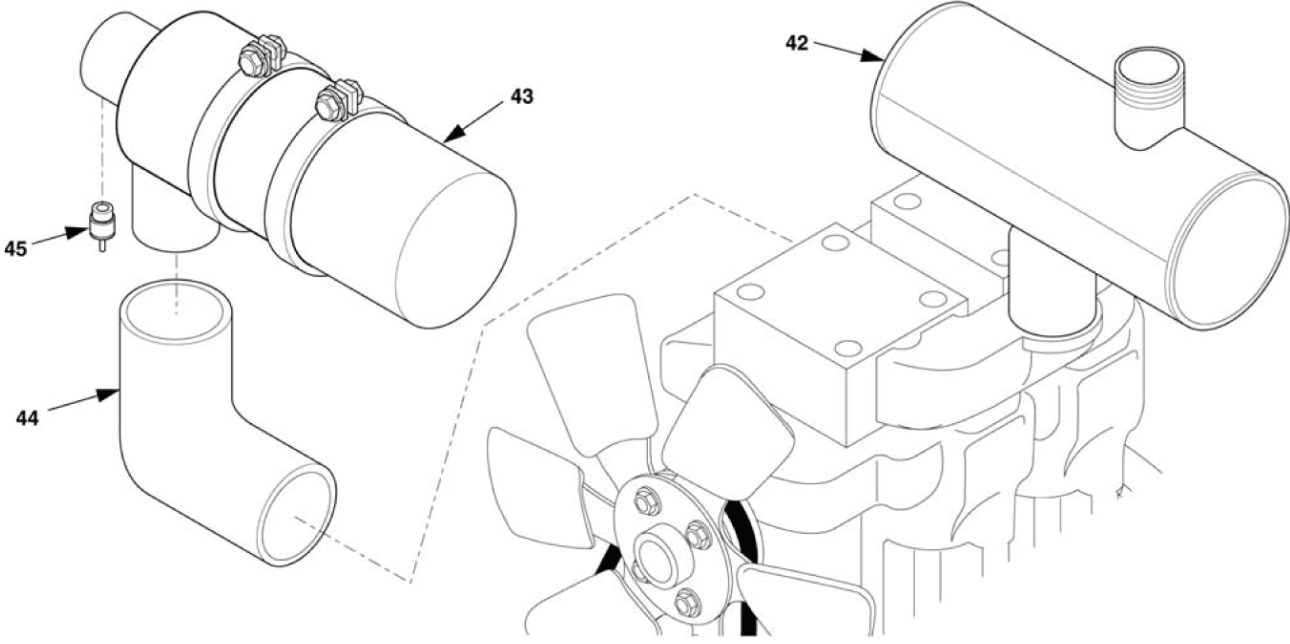
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
WARNING Battery acid can cause burns to unprotected skin. Wear safety goggles and chemical gloves and avoid acid splash while working on the batteries. Failure to comply may cause injury or death to personnel.				
WARNING Batteries give off combustible gas. Do not smoke or use open flame when performing maintenance. Failure to comply may cause injury or death to personnel and damage to equipment.				
31	Before	BATTERY CABLES	Inspect cables and connectors for corrosion, damage, loose, or missing parts.	Cables are loose, damaged, or missing.
WARNING High voltage is produced when the generator set is in operation. Never attempt to start the generator set unless it is properly grounded. Failure to comply with this warning can cause injury or death to personnel.				
32	Before	OUTPUT BOX ASSEMBLY	a. Check for loose or damaged wiring or cables. b. Check output terminals for damage or missing hardware.	Loose or damaged wiring or cables. Damaged or missing hardware.
33	Before	CONTROLS AND INDICATORS	a. Check all indicators and controls for damage or missing parts. b. Press PUSH TEST RESET LAMPS button (46) on fault indicator. All lights must light.	Indicators or controls damaged or missing.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

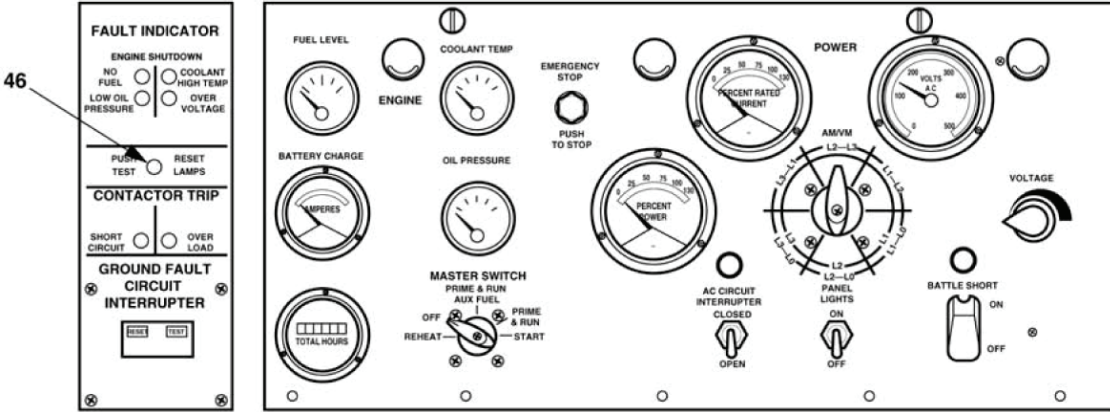
ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
				
34	Before	CONTROL BOX HARNESS	Check inside control box for loose or damaged wiring. See TM 9-6115-641-10.	Loose or damaged wiring.
35	Before	GROUND ROD CABLE AND CONNECTIONS	a. Inspect for damage, corrosion, and loose connections. b. Inspect ground rod and cable for loose connections, breaks, damage and corrosion.	Cable is missing or damaged.
WARNING Never attempt to start generator set, unless it is properly grounded. Failure to comply with this warning can result in severe personal injury or death by electrocution. Refer to generator TM 9-6115-641-10.				
36	During	OPERATION	a. Be alert for any unusual noises while towing the trailer. Stop and investigate any unusual noises. b. Ensure that the trailer is tracking/ following correctly behind towing vehicle with no side pull.	Brakes locked-up.
37	During	SWITCH BOX ASSEMBLY	Check indicator lights. Ensure indicator lights are operating properly.	
38	During	HOUSING	a. Check doors, panels, hinges, and clamping catches for damaged, loose, or corroded items. b. Inspect air intake and exhaust grills for debris.	Cannot secure door. Grills plugged or flow cut off.

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING Operating generator set with unit doors open or panels removed exposes personnel to a high noise level. Close unit doors and replace panels or wear hearing protection while operating or working near a running generator set. Failure to comply may cause injury. WARNING Top housing panels can get very hot. Allow panels to cool down before performing maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel. WARNING Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment. WARNING When running, generator set engine has hot metal surfaces that will burn flesh on contact. Shut down generator set and allow generator to cool before checks, services, and maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel.				
39	During	ENGINE ASSEMBLY	Check for loose, damaged, or missing parts.	
40	During	FUEL SYSTEM	Inspect for leaks, damaged, loose, or missing parts.	Any fuel leaks, damaged or loose parts.
41	During	LUBRICATION SYSTEM	a. Inspect for leaks, damaged, loose, or missing parts. b. Check oil level on both sides of dipstick.	Class III leaks and damaged or loose parts. Oil level below ADD level.
42	During	COOLING FAN	Listen for unusual noise in fan area.	
WARNING High voltage is produced when this generator set is in operation. Do not contact output cables when operating this generator set. Failure to comply may cause injury or death to personnel.				
43	During	CONTROLS AND INDICATORS	Observe the following indicators and ensure they are operating properly.	

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
			COOLANT TEMP. 170-200 °F (77-93 °C) OIL PRESSURE 25-60 psi (172-414 kPa) FREQUENCY 60 Hz VOLTAGE 120-240 VAC	
WARNING High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.				
44	During	GROUND ROD CABLE AND CONNECTIONS	Inspect ground rod and cable for loose connections, breaks, damage and corrosion.	Cable is missing or damaged.
WARNING Top housing panels can get very hot. Allow panels to cool down before performing maintenance. Wear gloves and additional protective clothing as required. Failure to comply may cause injury or death to personnel.				
45	After	HOUSING	a. Check doors, panels, hinges, and clamping catches for damaged, loose, or corroded items. b. Inspect air intake and exhaust grills for debris.	Cannot secure doors. Intake and exhaust grills plugged.
46	After	IDENTIFICATION PLATES	Check to ensure identification plates are secure.	
47	After	SKID BASE	Inspect skid base for cracks and corrosion.	Skid base is cracked or shows signs of structural damage.
WARNING Fuels used in the generator set are combustible. Do not smoke or use open fire when performing maintenance. Fire and possible explosion may result. Failure to comply may cause injury or death to personnel and damage to equipment.				

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING Fuel is combustible and toxic to eyes, skin, and respiratory tract. Skin and eye protection are required when working in contact with fuel. Avoid repeated or prolonged contact. Provide adequate ventilation. Operators are to wash exposed skin and change soaked clothing promptly if exposed to fuel. Failure to comply may cause injury or death to personnel.				
48	After	ENGINE ASSEMBLY	Check for loose, damaged, or missing hardware.	
49	After	FUEL SYSTEM	Inspect fuel system for leaks, and damaged, loose, or missing hardware.	Any fuel leaks, and damaged, loose, or missing parts.
50	After	FUEL FILTER/WATER SEPARATOR	a. Inspect fuel filter/water separator for leaks, cracks, damage, proper mounting, or missing parts. b. Drain water from fuel filter/water separator.	Any fuel leaks.
51	After	LUBRICATION SYSTEM	a. Inspect lubrication system for leaks, damaged, loose, or missing parts. b. Check oil level on both sides of dipstick. c. Check engine oil for contamination.	Class III leaks, damaged, loose, or missing parts. Oil level is below ADD level. Engine oil shows signs of contamination.
WARNING Cooling system operates at high temperature and pressure. Contact with high-pressure steam and/or liquids can cause burns and scalding. Shut down generator set and allow system to cool before performing checks, services, and maintenance. Wear gloves, additional protective clothing, and goggles as required. Contact with high-pressure steam and/or liquids can cause burns and scalding. Failure to comply may cause injury or death to personnel.				
52	After	RADIATOR	Check radiator for leaks, damaged, or missing parts.	Class III leaks. Radiator cap missing.
53	After	HOSES	Check hoses for leaks or cracks.	Class III leaks.
54	After	FAN BELT	Inspect belts for cracks, fraying, or looseness.	Broken belt.
55	After	OVER-FLOW BOTTLE	Check over-flow bottle for leaks or missing parts. Check coolant level.	Class III leaks. Coolant level is below COLD line.
56	After	<u>CONTROL BOX ASSEMBLY</u> CONTROLS AND INDICATORS	Check all controls and indicators for damaged or missing parts.	Controls or indicators damaged or missing.
57	After	<u>TRAILER</u>		

Table 1. Operator Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
		SWITCH BOX ASSEMBLY (POWER PLANTS ONLY)	a. Check for loose or missing hardware. b. Check for damaged indicator lights. c. Check hinges and clamping catches. d. Check for loose or damaged switches. e. Check output terminals and connectors for damaged or missing hardware.	Two or more mounting bolts missing. Indicator lights are damaged. Switches loose or damaged. Output terminals or connectors will not properly secure load cables.

Mandatory Replacement Parts List

There are no replacement parts required for these PMCS procedures.

END OF WORK PACKAGE

OPERATOR MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN**

OPERATOR LUBRICATION

LUBRICATION

Lubrication instructions for the generator set and engine are contained in LO 9-6115-641-12. Lubrication instructions for the trailers are contained in TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

END OF TASK**END OF WORK PACKAGE**

OPERATOR MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****OPERATOR MAINTENANCE: REPAIR OR REPLACEMENT**

INITIAL SETUP:**References**

Operator PMCS (WP 0010, Table 1)
TM 9-6115-641-10

OPERATOR MAINTENANCE**Generator Set**

Refer to TM 9-6115-641-10.

Power Plant

The maintenance functions that the Maintenance Allocation Chart authorizes the operator to perform are the preventive maintenance checks and services listed in WP 0010, Table 1, and the replacement of indicator lamps located on the switch box. Perform the following steps to replace ON, ON-LINE, and SYNCHRONIZING indicator lamps:

REPAIR OR REPLACEMENT**Replacement of ON, ON-LINE, and SYNCHRONIZING LAMPS:****WARNING**

Generator set operator is permitted to make connections to out terminal board only. Connections to load distribution points or to equipment beyond the output terminal board shall only be made by properly trained and authorized personnel. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

1. Unscrew lens from lamp housing and remove lamp from lens ON (Figure 1, Item 2) and ON-LINE (Item 3) lamps or entire housing for SYNCHRONIZING (Item 1) lamps.
2. Install new lamp in housing for SYNCHRONIZING (Item 1) or install lens and screw lens on for ON (Item 2) and ON-LINE (Item 3) lamps.

END OF TASK**END OF WORK PACKAGE**

CHAPTER 5

FIELD TROUBLESHOOTING PROCEDURES

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 5

FIELD TROUBLESHOOTING PROCEDURES

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
Field Troubleshooting Index	0013
Field Troubleshooting	0014

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****FIELD TROUBLESHOOTING INDEX**

GENERAL

Power Plant Troubleshooting covers troubleshooting procedures for components unique to the power plant/power unit. Refer to the applicable generator set or trailer technical manual, as listed below, for generator and trailer troubleshooting procedures.

Generator Set Troubleshooting

Refer to TM 9-6115-641-24 and TM 9-2815-252-24.

Trailer Troubleshooting

Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

Power Plant Troubleshooting

The following symptom index contains troubleshooting information for locating and correcting operating troubles that may develop in components unique to the power plant end item. The symptom index lists malfunctions associated with switch box operation. Each malfunction listing includes a reference to the applicable figure that contains a chart. The chart will help you determine probable causes and corrective actions to take. The symptom index cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or cannot be corrected by listed corrective actions, notify next higher level of maintenance.

NOTE

Prior to the use of any of the following procedures, be sure the switch box is properly wired to the generator sets load terminals. Failure to do so will give misleading results.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when the generator set is in operation. SHUT DOWN generator set and make sure it is free of any power source before attempting any repair or maintenance on the generator set, switch box, or cables, unless specifically directed otherwise in the troubleshooting procedure. Failure to comply with this warning can cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

Malfunction/Symptom**Troubleshooting
Procedure****SYMPTOM INDEX**

ON Indicator Lamp Serviceable but Fails to Light with Generator Set Running	Figure 1
ON-LINE Indicator Lamp Serviceable but Fails to Light when ON/OFF Switch is Placed in ON Position	Figure 2
SYNCHRONIZING Indicator Lamps Fail to Light when Transfer Switch is Operated	Figure 3
No Power to Load with ON-LINE Indicator Lamp On	Figure 4
All Indicator Lamps Working Properly but Load will not Transfer	Figure 5
ON Indicator Lamp Assembly Tests Good, But ON Indicator Lamp Fails to Light with Generator Set Running	Figure 6
ON-LINE Indicator Lamp Assembly and ON/OFF Switch Serviceable but ON-LINE Indicator Lamp Fails to Light when ON/OFF Switch is Placed in ON Position	Figure 7
SYNCHRONIZING Indicator Lamp Assembly and Transfer Switch Serviceable, but SYNCHRONIZING Indicator Lamps Fails to Light when TRANSFER Switch is Closed and then Released	Figure 8
All Indicator Lamps Working Properly, but Load Will Not Transfer	Figure 9

END OF WORK PACKAGE

MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****FIELD TROUBLESHOOTING**

INITIAL SETUP:**Test Equipment**

Multimeter (WP 0111, Table 2, Item 2)

Tools and Special Tools

Tool Kit, General Mechanics (WP 0111, Table 2, Item 9)

Personnel Required

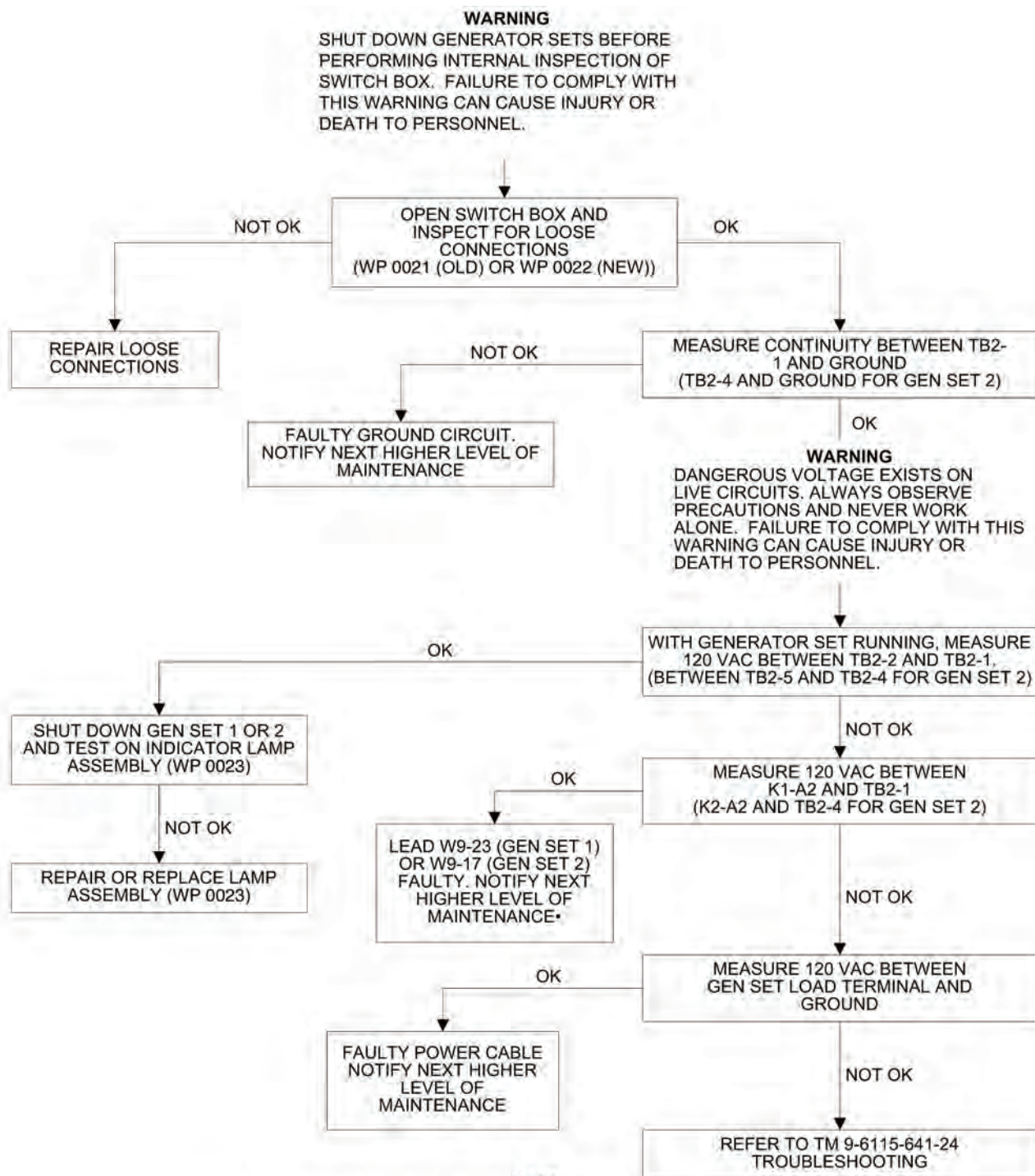
Operator (1)
91D Assistant (1)

References

Description and Use of Operator Controls and Indicators (WP 0004)
Field PMCS (WP 0017)
Power Cable W19 Maintenance (WP 0019)
Switch Box (Old) (WP 0021)
Switch Box (New) (WP 0022)
Indicator Light Assembly (WP 0023)
Synchronizing Light (WP 0024)
Toggle Switch (WP 0025)
Electrical Leads W3-W8 (WP 0041)
Relay Board Harness W11 (WP 0043)
Permissive Paralleling Relay (WP 0046)
Contactors K1 and K2 (WP 0047)
Diodes CR1-CR4 (WP 0050)
Electrical Leads W3-W8 (WP 0061)
Relay Board Harness Assembly W11 (WP 0062)
Switch Box Harness Assembly (Old) (WP 0063)
Switch Box Harness Assembly (New) (WP 0064)
TM 9-6115-641-10

Equipment Condition

Both Sets: Trailer Support Devices Engaged (WP 0005)
Grounding of Power Unit/Power Plant (WP 0005)
Engine Control Master Switch in OFF Position (WP 0005)

**Note**

This troubleshooting chart covers both versions of the switch boxes.

Figure 1. ON Indicator Lamp Serviceable but Fails to Light with Generator Set Running.

END OF TASK

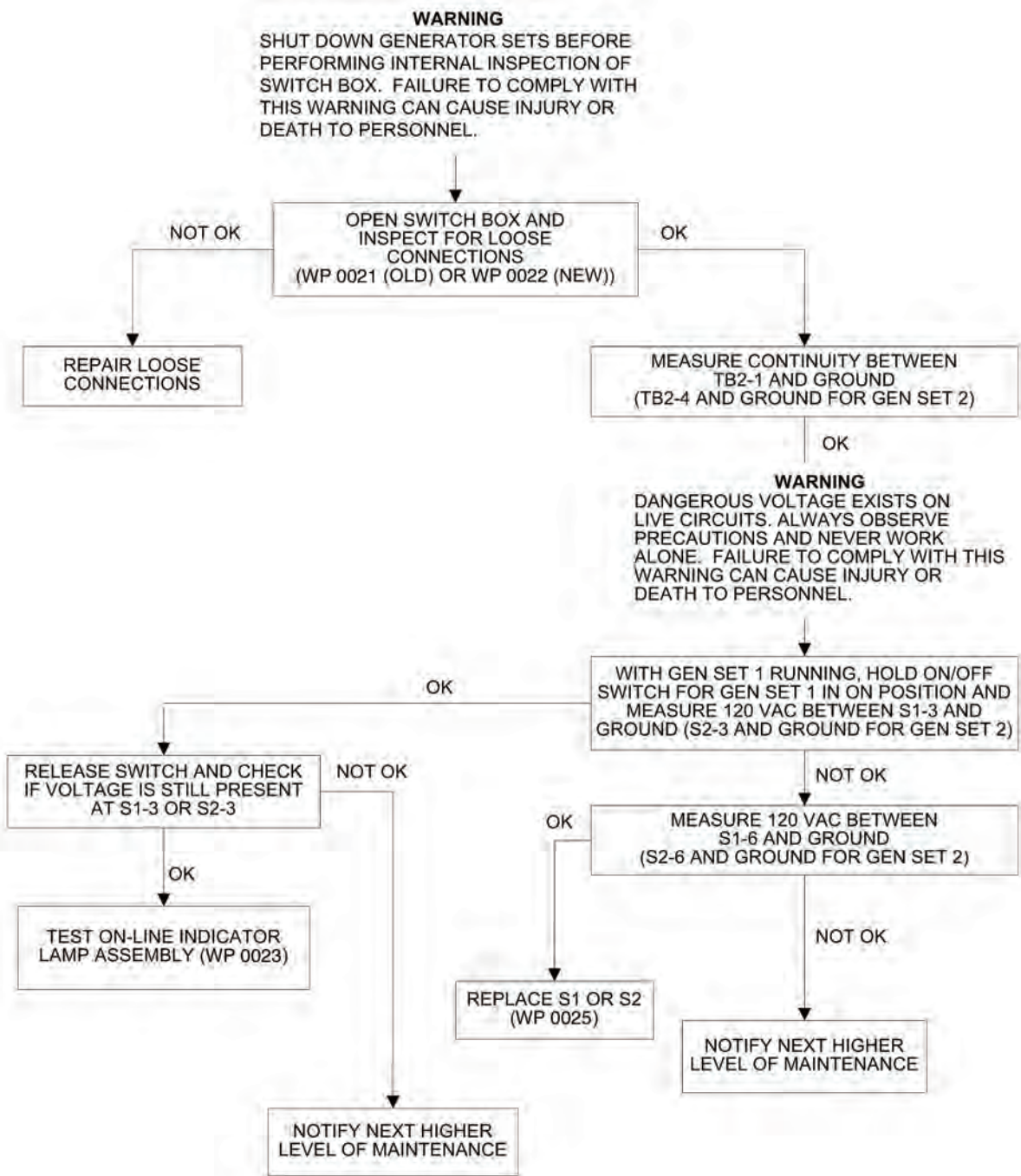
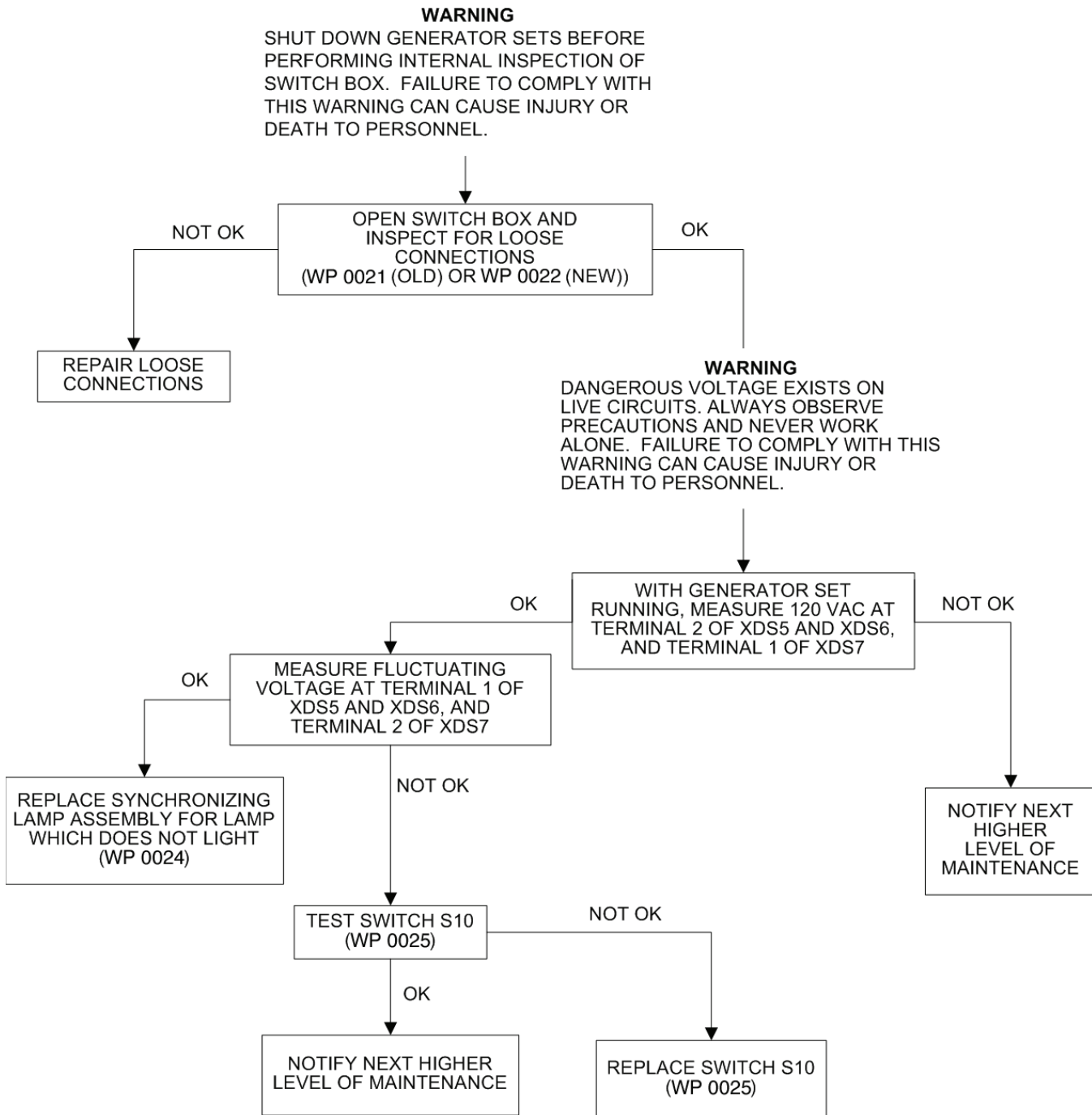


Figure 2. ON-LINE Indicator Lamp Serviceable but Fails to Light when ON/OFF Switch is Placed in ON Position.

END OF TASK

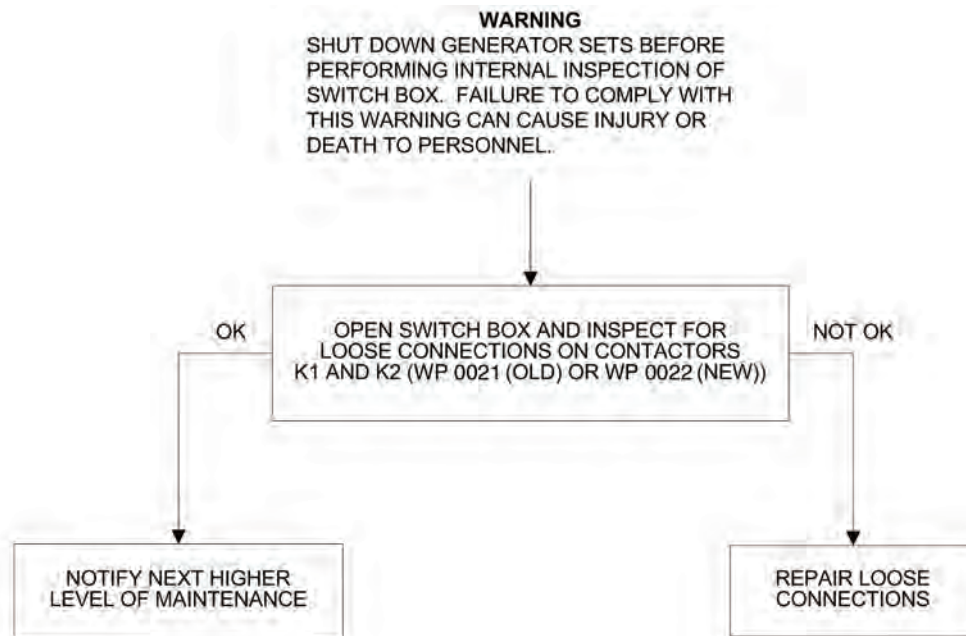


Note

This troubleshooting chart covers both versions of the switch boxes.

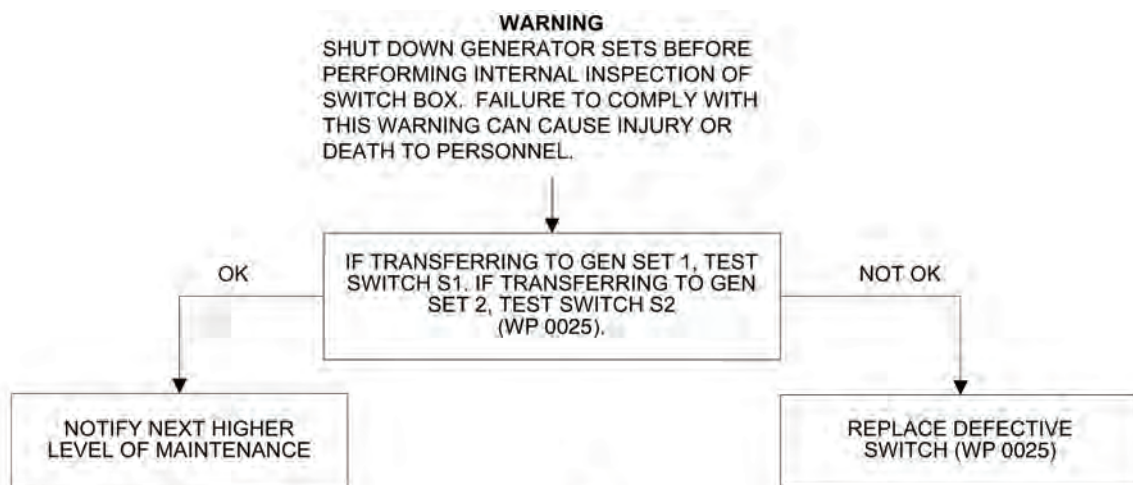
Figure 3. SYNCHRONIZING Indicator Lamps Fail to Light when Transfer Switch is Operated.

END OF TASK

**Note**

On previous model switch boxes, load terminal N is designated LO.
This troubleshooting chart covers both versions of the switch box.

Figure 4. No Power to Load with ON-LINE Indicator Lamp On.

END OF TASK**Note**

On previous model switch boxes, load terminal N is designated LO.
This troubleshooting chart covers both versions of the switch box.

Figure 5. All Indicator Lamps Working Properly but Load will not Transfer.

END OF TASK

WARNING
SHUT DOWN GENERATOR SETS BEFORE
PERFORMING INTERNAL INSPECTION OF
SWITCH BOX. FAILURE TO COMPLY WITH
THIS WARNING CAN CAUSE INJURY OR
DEATH TO PERSONNEL.

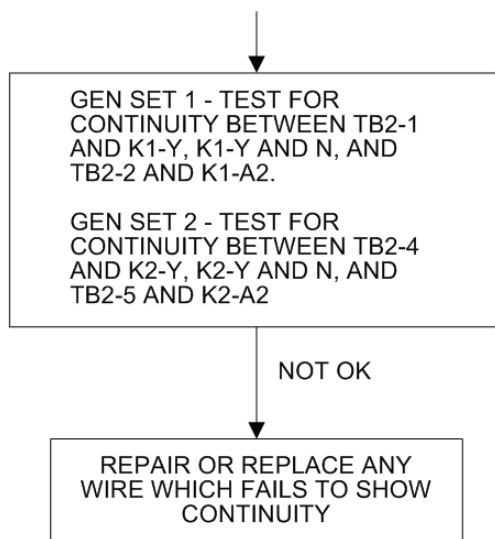


Figure 6. ON Indicator Lamp Assembly Tests Good, But ON Indicator Lamp Fails to Light with Generator Set Running.

END OF TASK

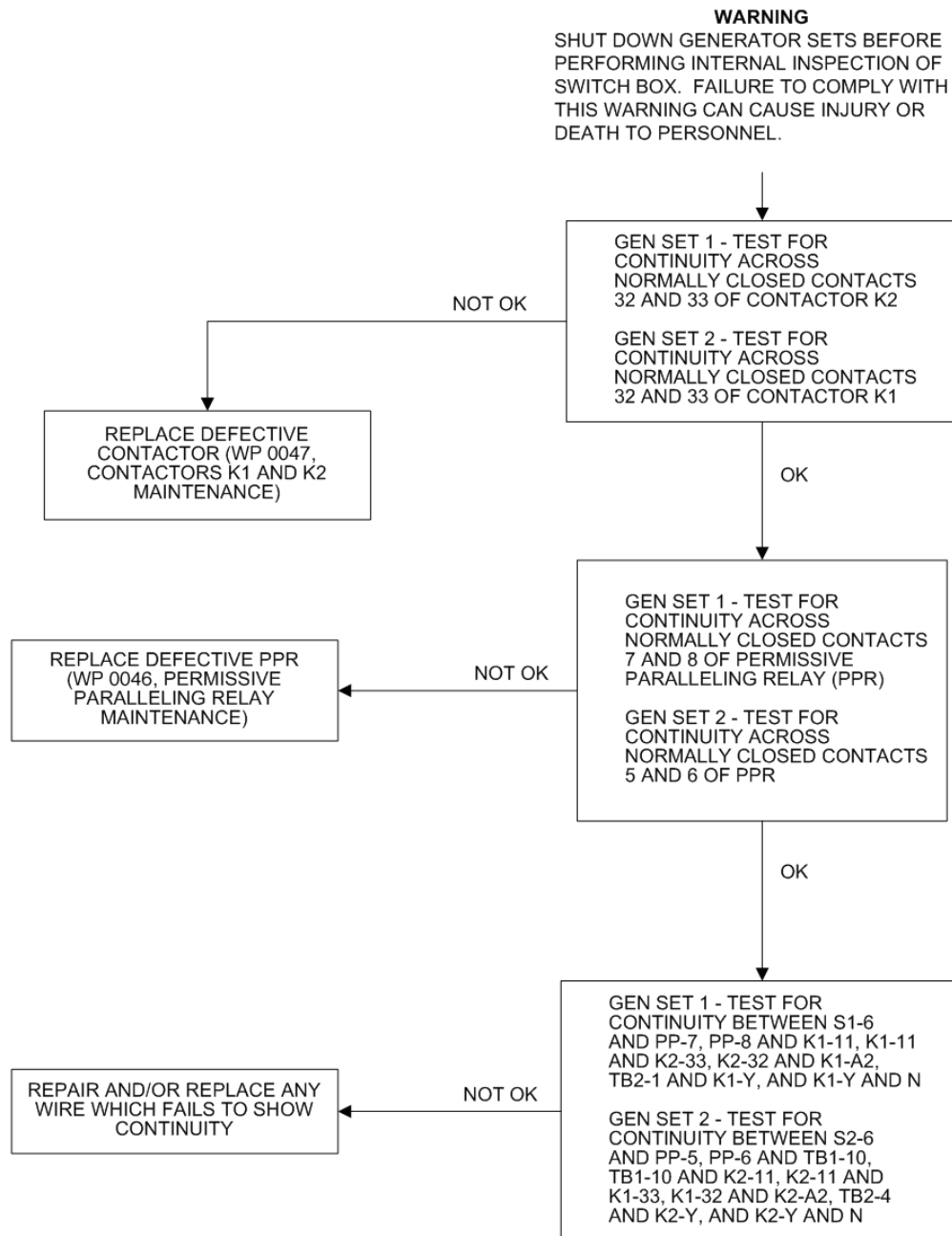


Figure 7. ON-LINE Indicator Lamp Assembly and ON/OFF Switch Serviceable but ON-LINE Indicator Lamp Fails to Light when ON/OFF Switch is Placed in ON Position.

END OF TASK

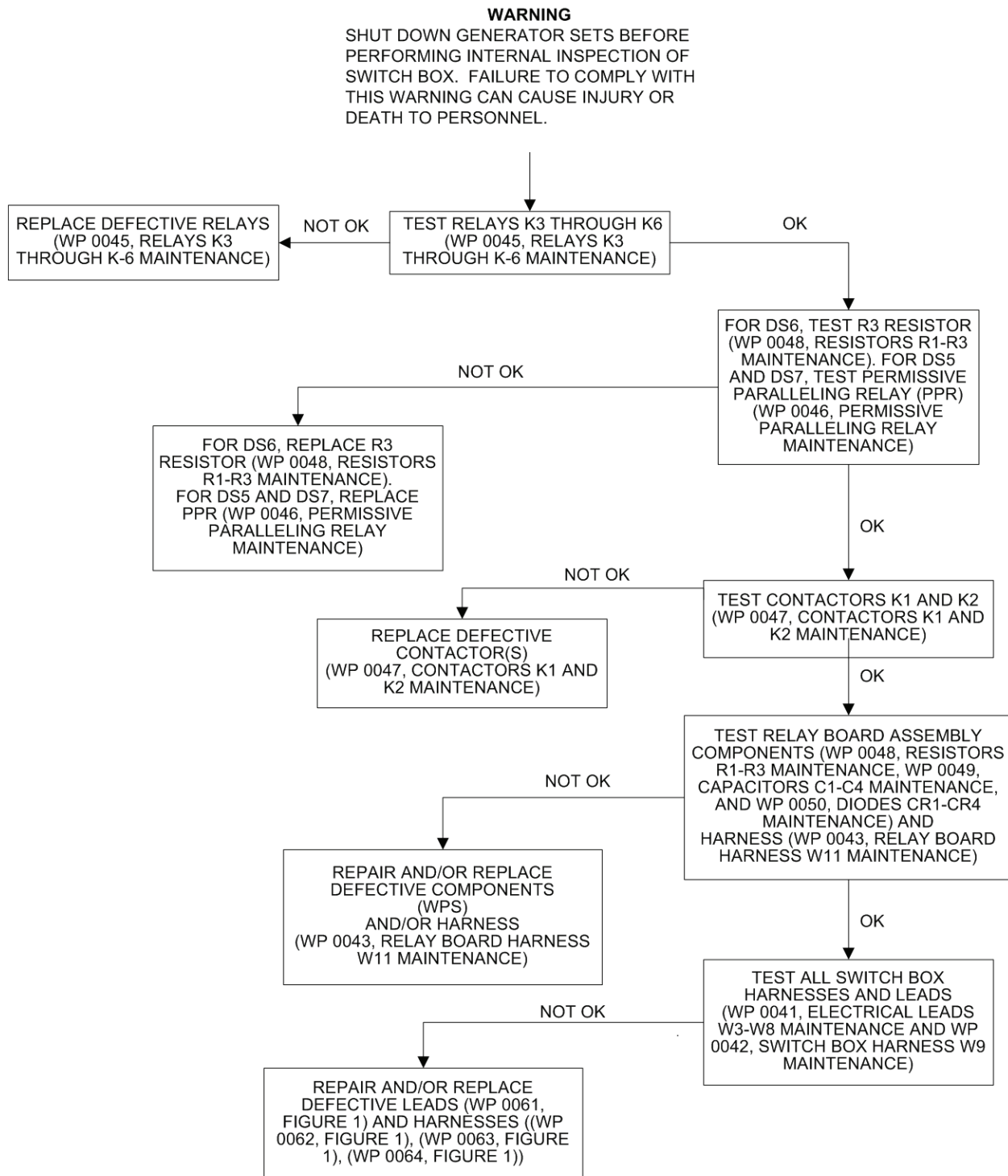


Figure 8. SYNCHRONIZING Indicator Lamp Assembly and Transfer Switch Serviceable, but SYNCHRONIZING Indicator Lamps Fails to Light when TRANSFER Switch is Closed and then Released.

END OF TASK

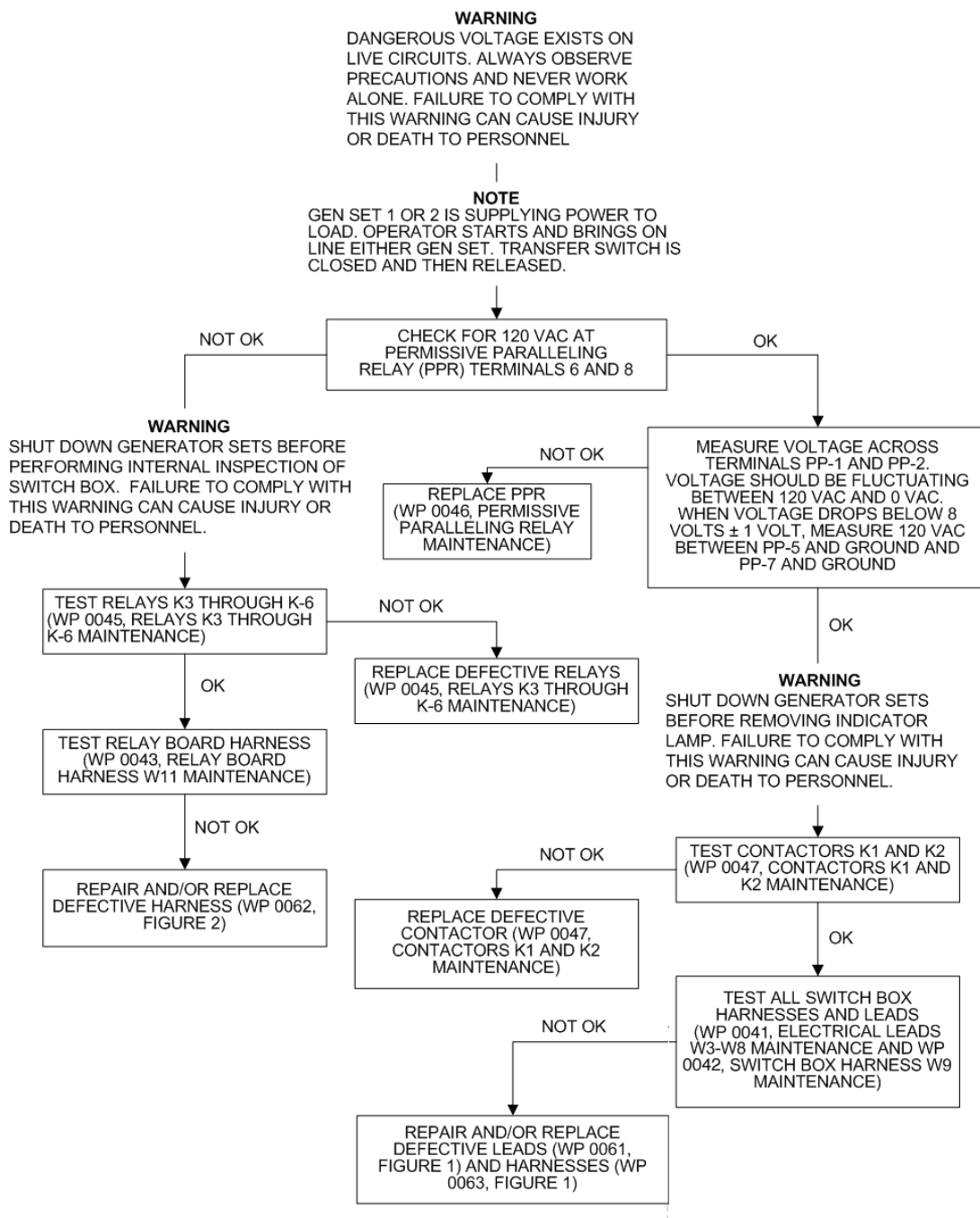


Figure 9. All Indicator Lamps Working Properly, but Load Will Not Transfer.

END OF TASK

END OF WORK PACKAGE

CHAPTER 6

FIELD MAINTENANCE INSTRUCTIONS

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 6

FIELD MAINTENANCE INSTRUCTIONS

WORK PACKAGE INDEX

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Toggle Switch.....	0025
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AN/MJQ-35 Generator Mounting Rail	0053
AN/MJQ-36 Generator Mounting Rail	0054
PU-797 Generator Mounting Rail	0055
AN/MJQ-35 Trailer Lifting Bracket	0056
PU-797A and AN/MJQ-35A Generator Mounting Rail	0057
Light Tactical Trailer Rear Leveling-Support Jack	0058
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FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****SERVICE UPON RECEIPT**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanics (WP 0111, Table 2, Item 9)

Personnel Required

Operator (1)
91D Assistant (1)

References

Description and Use of Operator Controls and Indicators (WP 0004)
Operation Under Usual Conditions (WP 0005)
Power Cable Maintenance (WP 0020)
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-2330-202-14&P (1 Ton Trailer)
TM 9-2330-213-14&P (1½ Ton Trailer)
TM 9-2330-392-14&P (Light Tactical Trailer)

SERVICE UPON RECEIPT OF MATERIEL**UNPACKING**

The generator sets will have been boxed prior to shipment. Unpack the power plant as follows:

1. Remove and set aside packing list from side of box. Also remove and set aside shortage packing list if there is one.

WARNING

Steel strapping used in packaging of the power plant/power unit has sharp edges. Wear gloves and use care when cutting and handling steel strapping. Failure to comply with this warning can cause personal injury.

2. Using metal cutters, carefully cut metal strapping from generator sets. Remove metal strapping.
3. Switch box cover and switch box load terminal cover may have been secured with tape. If so, remove tape.
4. Unpack and secure fire extinguishers in brackets on trailer.
5. If accessory box is secured with strapping, carefully cut and remove strapping. Open accessory box and remove any packaging/cushioning material from accessories.
6. Using the packing list(s) removed in step a., inventory the accessories. Check missing items against shortage packing list (if any). Report any discrepancies to your supervisor.

END OF TASK**CHECKING UNPACKED EQUIPMENT**

1. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on SF 364, Report of Discrepancy (ROD).
2. Check the equipment against the packing list(s) to see if the equipment is complete. Report all discrepancies in accordance with the instructions in DA Pam 750-8.
3. Check to see whether the equipment has been modified.

END OF TASK

PROCESSING UNPACKED EQUIPMENT

Deprocessing Unpacked Equipment

Refer to DA Form 2258, Depreservation Guide for Vehicles and Equipment, packed with the power plant/power unit. The depreservation guide explains what was done to the equipment prior to packaging. It also explains what has to be done before placing the equipment in operation. Perform all depreservation actions required by the depreservation guide.

END OF TASK

INSTALLATION

Tools, Test Equipment, and Materials Required for Installation

A general mechanic's tool kit is required for installation of the power plant/power unit.

NOTE

The following warnings apply to assembly of all model Power Plants covered in this TM.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing inspection of load cables. Failure to comply may cause injury or death to personnel by electrocution.

Assembly of Equipment

Assembly of Power Plants AN/MJQ-35 and AN/MJQ-36. Refer to Figure 1 and Figure 2 to assemble the AN/MJQ-35 and AN/MJQ-36 Power Plants as follows:

NOTE

Refer to Figure 1, for installation of power cables on AN/MJQ-35 and Figure 2 for installation on AN/MJQ-36.

1. For front generator set, remove stuffing tube locknut (1) from stuffing tube body (7). Slide locknut (1) off power cable leads and ground cable (3).
2. Loosen compression nut (4). Pull in required length of cable to allow installation of leads on terminal board.
3. Insert power cable leads (ends without terminal lugs) (3) through generator output plate (2). Slide stuffing tube locknut (1) over power cable leads.
4. Position stuffing tube body (7) against generator output plate (2). Install and tighten stuffing tube locknut (1).
5. Connect power cable leads and ground cable as follows:
 - a. Connect lead marked L1 to generator set load terminal L1.
 - b. Connect lead marked L2 to generator set load terminal L2.
 - c. Connect lead marked L3 to generator set load terminal L3.
 - d. Connect lead marked N to generator set load terminal N.
 - e. Connect lead marked GND to generator set GND terminal.
6. Position cable inside two clamps (10) and secure clamps (10) to trailer using two screws (8), flat washers (9), and nuts (11).
7. Repeat Steps 1. through 6. for rear generator set.
8. To bond generator to trailer remove wing nut (12), two flat washers (13), hex nut (14), and flat washer (15).
9. Position ground cable (16) over ground stud (17).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

10. Install flat washer (15), hex nut (14), two flat washers (13), and wing nut (12). Tighten nut (12).
11. Unlatch and open switch box load terminal cover (18).
12. Connect ground wire (16) to switch box ground terminal (19).
13. Close and latch switch box load terminal cover (18).
14. Position cable and ground wire inside two clamps (10) and secure clamps to trailer using two screws (8), flat washers (9), and nuts (11).

END OF TASK

Assembly of Power Plant AN/MJQ-35A. Refer to Figure 3 and assemble the AN/MJQ-35A Power Plant as follows:

1. For front generator set, remove stuffing tube locknut (1) from stuffing tube body (7). Slide locknut (1) off power cable leads and ground cable (3).
2. Loosen compression nut (4). Pull in required length of cable to allow installation of leads on terminal board.
3. Insert power cable leads (ends without terminal lugs) (3) through generator output plate (2). Slide stuffing tube locknut (1) over power cable leads.
4. Position stuffing tube body (7) against generator output plate (2). Install and tighten stuffing tube locknut (1).
5. Connect power cable leads and ground cable as follows:

- a. Connect lead marked L1 to generator set load terminal L1.
- b. Connect lead marked L2 to generator set load terminal L2.
- c. Connect lead marked L3 to generator set load terminal L3.
- d. Connect lead marked N to generator set load terminal N.
- e. Connect lead marked GND to generator set GND terminal.
6. Position cable inside two clamps (10) and secure clamps (10) to trailer using two screws (8), flat washers (9), and nuts (11).
7. Repeat Steps 1. through 5. for rear generator set.
8. Loosen nut (14) on ground terminal (16).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

9. Insert wire (15) through slot of ground terminal (16) and tighten nut (14).
10. Unlatch and open switch box load terminal cover (12).
11. Connect loose end of ground wire (15) to switch box ground terminal (13).
12. Close and latch switch box load terminal cover (12).

END OF TASK

Assembly of Power Plant AN/MJQ-35A. Refer to Figure 3 and assemble the AN/MJQ-35A Power Plant as follows:

1. For front generator set, remove stuffing tube locknut (1) from stuffing tube body (7). Slide locknut (1) off power cable leads and ground cable (3).
2. Loosen compression nut (4). Pull in required length of cable to allow installation of leads on terminal board.
3. Insert power cable leads (ends without terminal lugs) (3) through generator output plate (2). Slide stuffing tube locknut (1) over power cable leads.
4. Position stuffing tube body (7) against generator output plate (2). Install and tighten stuffing tube locknut (1).
5. Connect power cable leads and ground cable as follows:
 - a. Connect lead marked L1 to generator set load terminal L1.
 - b. Connect lead marked L2 to generator set load terminal L2.
 - c. Connect lead marked L3 to generator set load terminal L3.
 - d. Connect lead marked N to generator set load terminal N.
 - e. Connect lead marked GND to generator set GND terminal.
6. Position cable inside two clamps (10) and secure clamps (10) to trailer using two screws (8), flat washers (9), and nuts (11).
7. Repeat Steps 1. through 5. for rear generator set.
8. Loosen nut (14) on ground terminal (16).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

9. Insert wire (15) through slot of ground terminal (16) and tighten nut (14).
10. Unlatch and open switch box load terminal cover (12)
11. Connect loose end of ground wire (15) to switch box ground terminal (13).
12. Close and latch switch box load terminal cover (12).

END OF TASK

Assembly of PU-797 and PU-797A. If the ground wire was disconnected for Level A preservation of the generator set, install ground wire as follows:

NOTE

Ground stud on light tactical trailer is different than one used on other trailers.

1. If the light tactical trailer (PU-797A) is being used, go to Step 6. For other trailers, perform Steps 2. through 5. and then go to Step 8.
2. Remove wing nut (Figure 4, Item 1), two flat washers (2), hex nut (3), and flat washer (4) from ground stud (6).
3. Retrieve generator ground wire (5) from accessory box (8).
4. Place ground wire terminal (7) on ground stud (6).

WARNING

Ensure nuts on ground terminals are properly secured creating a good ground. Failure to comply with this warning can cause injury or death to personnel.

5. Install flat washer (4), hex nut (3), two flat washers (2), and wing nut (1).
6. Loosen nut (9) on light tactical trailer ground stud (10).
7. Insert wire (11) through slot of ground stud (10) and tighten nut (9).
8. Open generator load terminal access door (12).
9. Route loose end of ground wire (5 or 11) through cable access opening and pull loose end until it reaches ground terminal (13).
10. Connect ground wire loose end to ground terminal (13).
11. Close generator load terminal access door (12).

END OF TASK**PRELIMINARY CHECKS AND ADJUSTMENT OF EQUIPMENT****Generator Set**

Refer to TM 9-6115-641-10, TM 9-6115-641-24, and TM 9-2815-252-24.

Trailer

Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36.

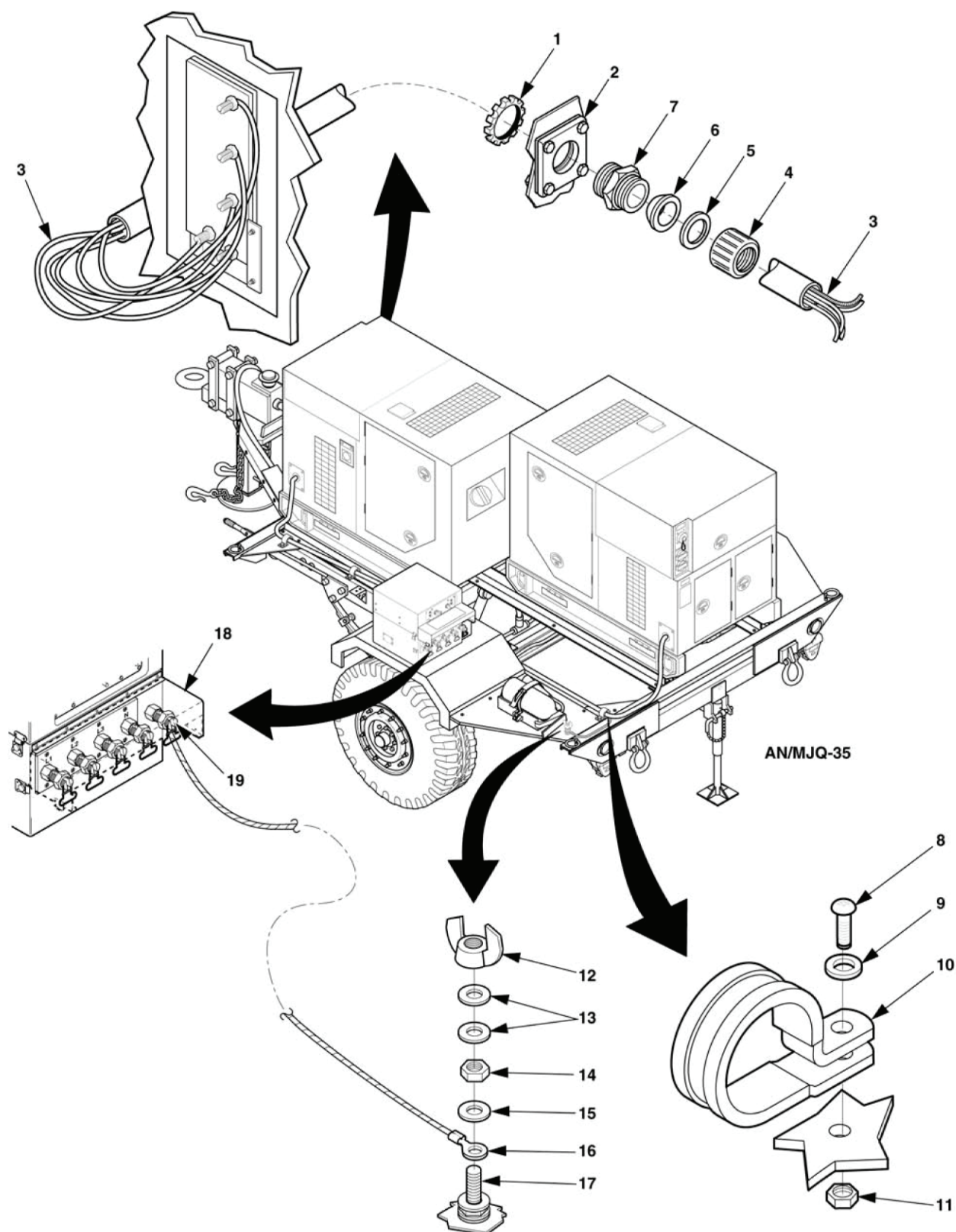


Figure 1. Installation of Power Cables on AN/MJQ-35.

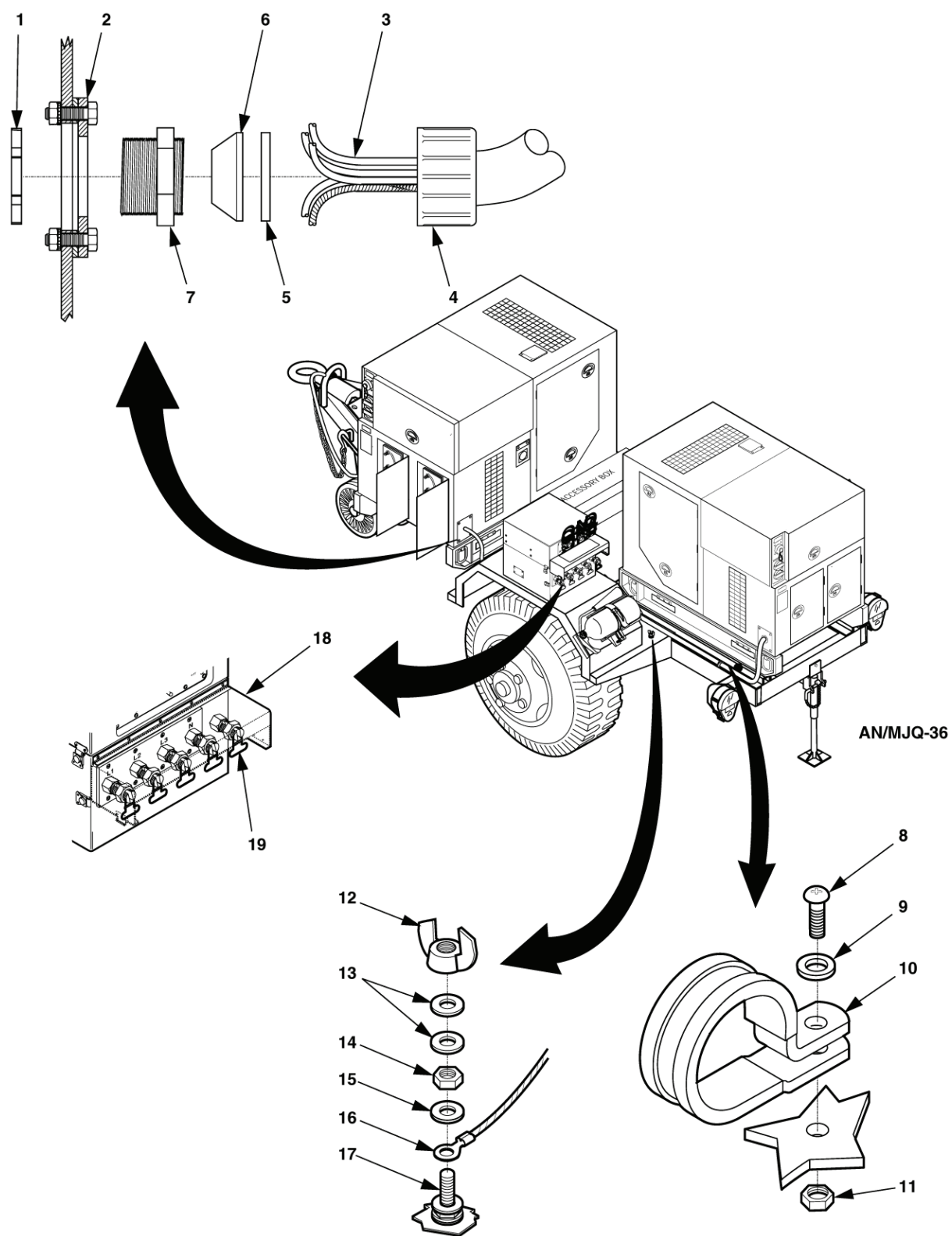


Figure 2. Installation of Power Cables on AN/MJQ-36.

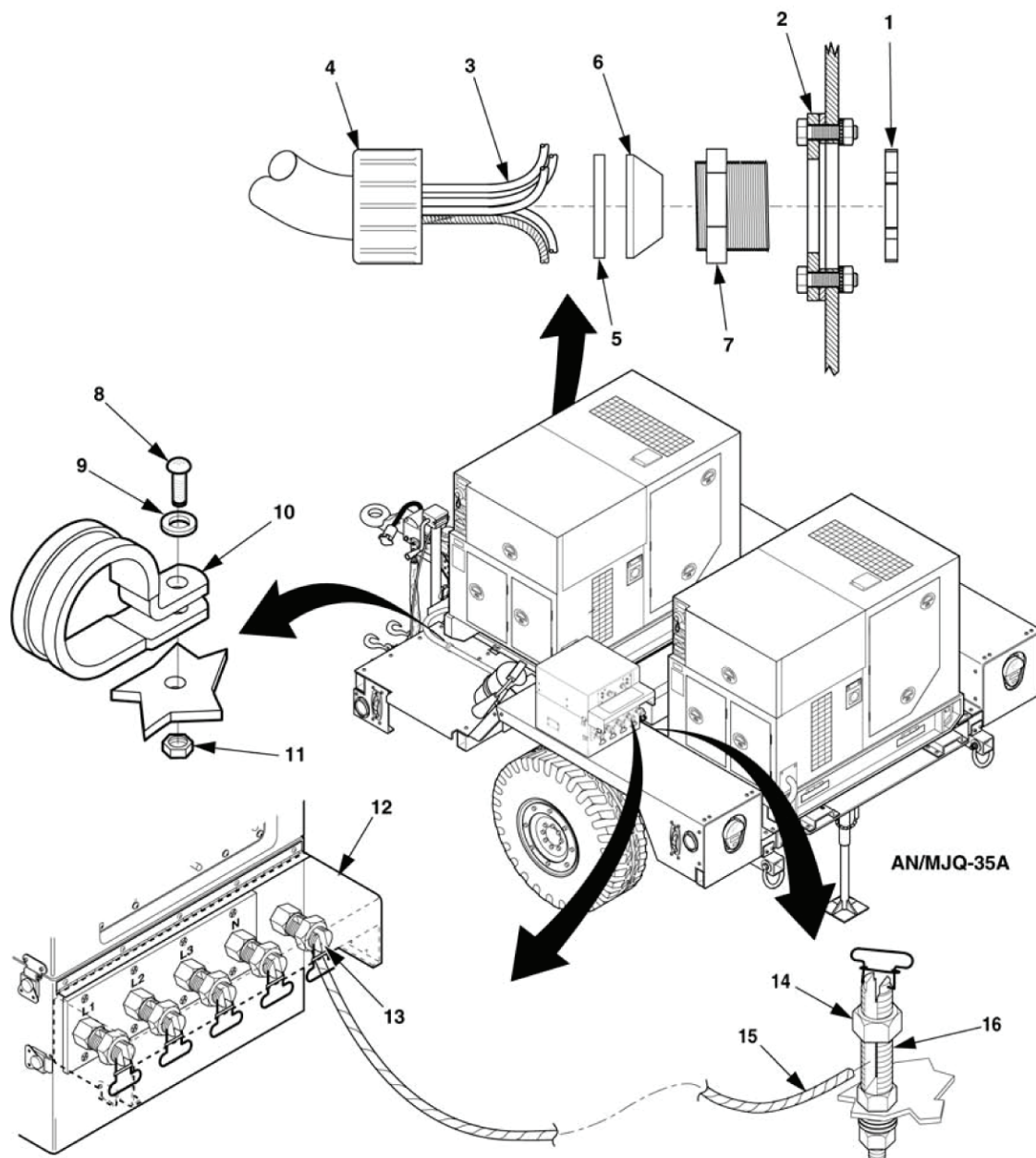


Figure 3. Installation of Power Cables on AN/MJQ-35A.

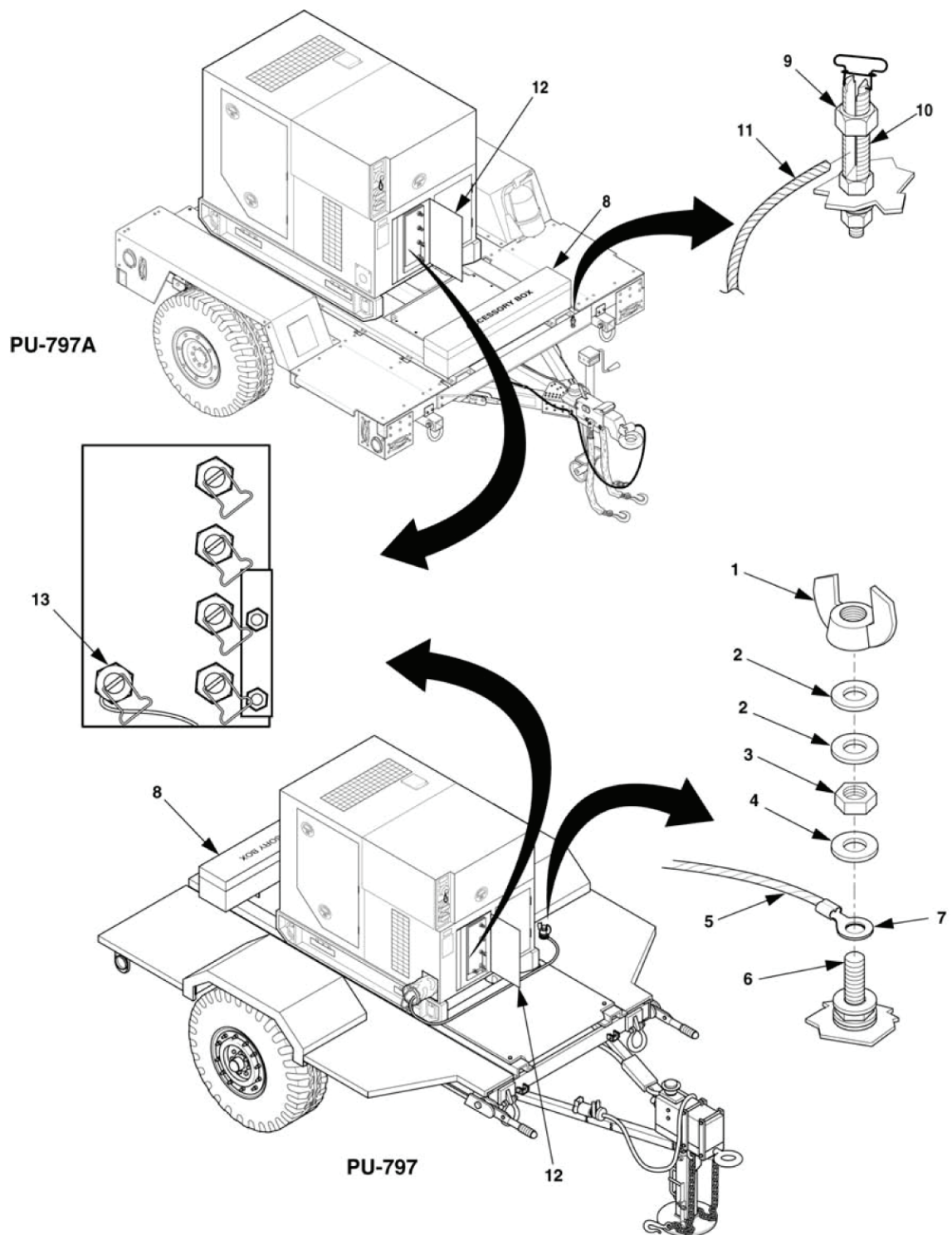


Figure 4. PU-797 and PU-797A Ground Wire Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

FIELD PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) INTRODUCTION

INTRODUCTION TO FIELD PMCS TABLE

WP 0017 Table 1 (PMCS table) has been provided so you can keep your equipment in good operating condition and ready for its primary mission.

Warnings, Cautions, and Notes.

Always observe the **WARNINGS**, **CAUTIONS**, and **NOTES** appearing in your PMCS table. Warnings and cautions appear before applicable procedures. You must observe **WARNINGS** to prevent serious injury to yourself and others. You must observe **CAUTIONS** to prevent your equipment from being damaged. You must observe **NOTES** to ensure procedures are performed properly.

Explanation of Table Entries

Item No. Column. Numbers in this column are for reference. When completing DA Form 2404 (Equipment Inspection and Maintenance Worksheet), include the item number for the check/service indicating a fault. Item numbers also appear in the order that you must do checks and services for the intervals listed.

Interval Column. This column tells you when you must do the procedure in the procedure column. Perform procedures such as "Monthly" or "Quarterly" at the listed calendar interval. Perform procedures designated by number of hours when the equipment has been operated for that many hours.

Item to be Checked or Serviced Column. This column lists the item to be checked or serviced.

Procedure Column. This column gives the procedures for checking or servicing the item listed in the item to be checked or serviced column. You must perform the procedure to know if the power plant/power unit is ready or available for its intended mission or operation. You must do the procedure at the time stated in the interval column.

Equipment Not Ready/Available If Column. Information in this column tells you what faults will keep the power plant/power unit from being capable of performing its primary mission. If checks or services show faults listed in this column, do not return the power plant/power unit to service until the faults have been corrected.

Other Table Entries

Be sure to observe all special information and notes that appear in your table.

Special Instructions

1. Trailer, generator, and engine PMCS must be performed along with the Power Unit/Power Plant PMCS. Refer to TM 9-2330-213-14&P for AN/MJQ-36 trailer PMCS, TM 9-2330-202-14&P for AN/MJQ-35 and PU-797 trailer PMCS, and TM 9-2330-392-14&P for AN/MJQ-35A and PU-797A trailer PMCS. Refer to TM 9-6115-641-24 for generator PMCS and TM 9-2815-252-24 for engine PMCS.
2. Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. Covering unused receptacles, stowing unused accessories, and other routine procedures such as equipment inventory, cleaning components, and touch-up painting are not listed in the table. These are things you should do any time you see that they need to be done. If a routine check is listed in the PMCS table, it is because experience has shown that problems may occur with that item. Take along tools and cleaning cloths needed to perform the required checks and services. Figure 1 is a routing diagram that shows the locations of the items to be checked/serviced. The call out numbers on Figure 1 correspond to the numbers listed in the Item No. column of WP 0017, Table 1.

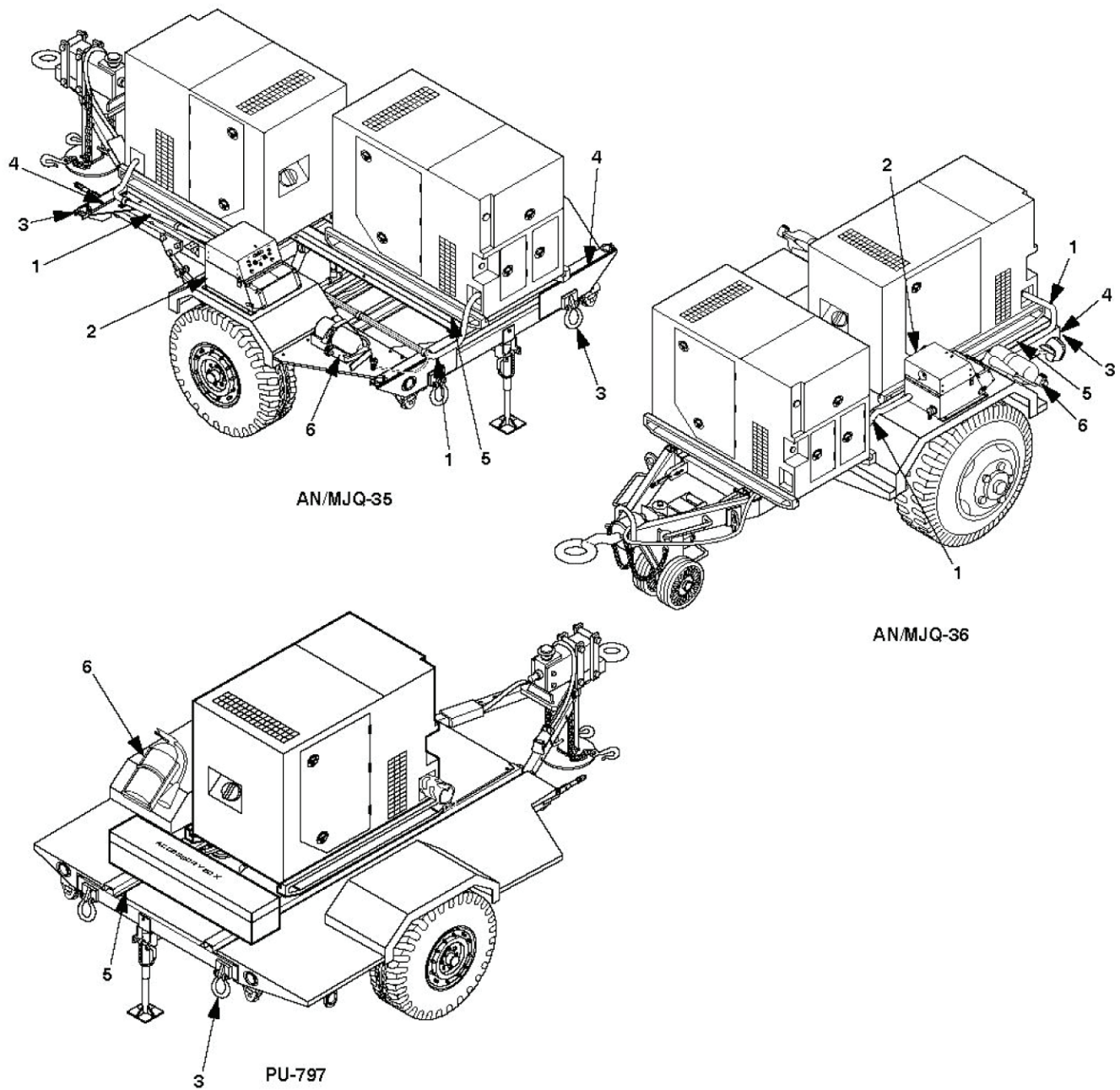


Figure 1. Field PMCS Routing Diagram (Sheet 1 of 2).

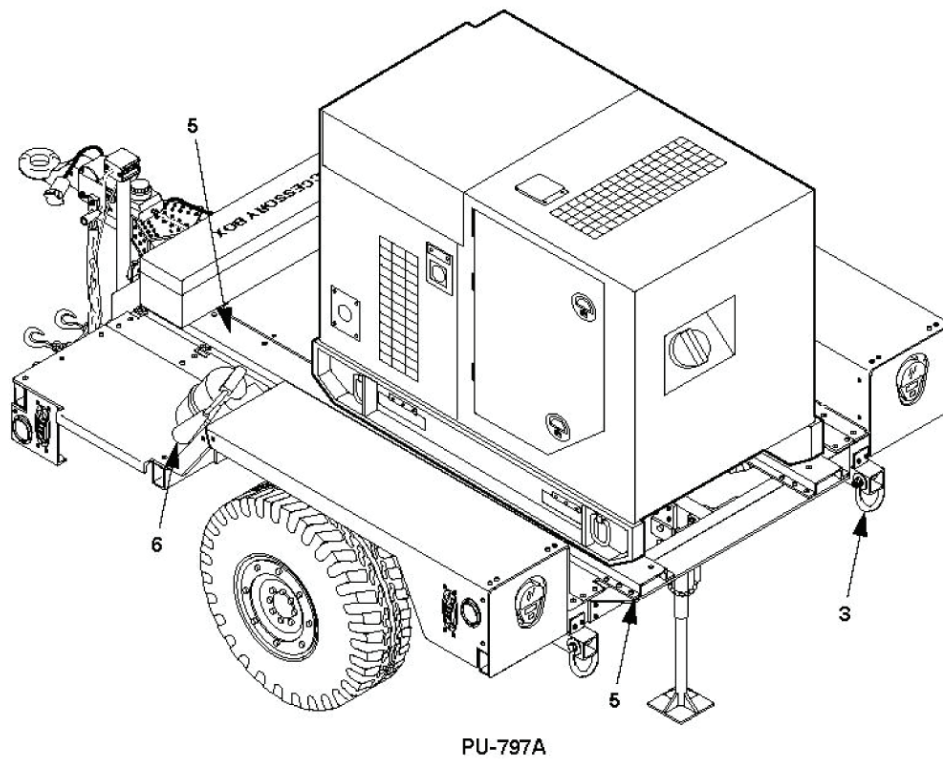
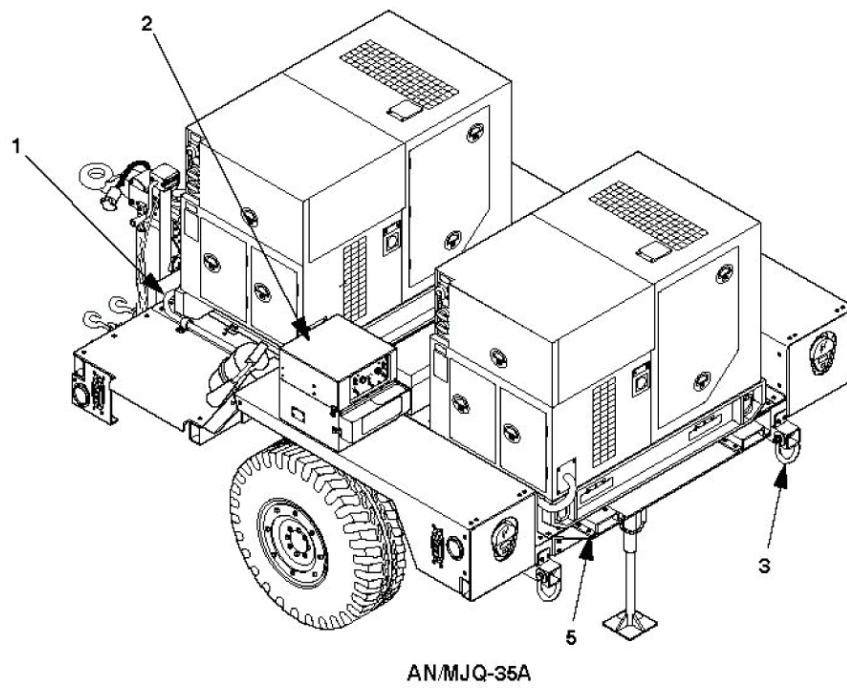


Figure 1. Field PMCS Routing Diagram (Sheet 2 of 2).

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
FIELD PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)

INITIAL SETUP:**Personnel Required**

Operator (1)
 91D Assistant (1)

References

Description and Use of Operator Controls and Indicators (WP 0004)
 Operator PMCS (WP 0010)
 Switch Box (Old) (WP 0021)
 Switch Box (New) (WP 0022)
 Trailer Lifting Ring (WP 0031)

Table 1. Field Preventive Maintenance Checks and Services.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
WARNING				
Before performing any maintenance that requires climbing on or under trailer, make sure that trailer handbrakes are set, trailer front landing leg/support leg is lowered, and leveling-support jack is lowered. Failure to comply with this warning can cause personal injury or death to personnel from trailer suddenly rolling or tipping.				
1	Semi-Annually	POWER CABLES (AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36 ONLY)	Inspect power cables for worn, frayed, or cracked insulation, loose terminal lugs, and loose connections. Tighten as needed.	Power cable is unserviceable.
2	Semi-Annually	SWITCH BOX ASSEMBLY (AN/MJQ-35, AN/MJQ-35A, AND AN/MJQ-36 ONLY)	Inspect switch box assembly (refer to WP 0021 (OLD) or WP 0022 (NEW)).	
3	Semi-Annually	TRAILER LIFTING RINGS (AN/MJQ-35, AND AN/MJQ-36 ONLY)	Inspect for wear, damage, and loose attaching hardware. If loose or damaged, refer to WP 0031.	
4	Semi-Annually	TRAILER LIFTING BRACKETS (AN/MJQ-35 AND AN/MJQ-36 ONLY)	Inspect for cracks, damage, or broken welds.	
5	Semi-Annually	MOUNTING RAILS	Inspect for cracks and deformation.	Mounting rail is cracked or deformed.
6	Semi-Annually	FIRE EXTINGUISHER	a. Inspect for broken seal and damage to handle.	

Table 1. Field Preventive Maintenance Checks and Services. - Continued

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT NOT READY/AVAILABLE IF:
			b. Weigh to determine whether charge is sufficient. Weight is 13 pounds when fully charged. If weight is 12.5 pounds or less, send to specialized activity for recharging.	Fire extinguisher not charged.

Mandatory Replacement Parts List

There are no replacement parts required for these PMCS procedures.

END OF WORK PACKAGE

MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****FIELD LUBRICATION**

INITIAL SETUP:**References**

Expendable Supplies and Durable Items List (WP
0114)
LO 9-6115-641-12

LUBRICATION**Power Plant/Power Unit Lubrication**

Detailed instructions for lubrication of major components of the power plants/power units are contained in the applicable generator set Lubrication Orders (LOs) and trailer TMs. The following paragraphs identify the applicable references and contain lubrication instructions that are not included in the references.

Generator Set Lubrication

Refer to LO 9-6115-641-12 for generator set and engine lubrication instructions. See WP 0114 for expendable supplies and materials needed for lubrication.

Trailer Assembly Lubrication

Refer to TM 9-2330-202-14&P for Power Plant AN/MJQ-35 and Power Unit PU-797 trailer chassis lubrication instructions, TM 9-2330-392-14&P for Power Plant AN/MJQ-35A and Power Unit PU-797A trailer chassis lubrication instructions, and TM 9-2330-213-14&P for Power Plant AN/MJQ-36 trailer chassis lubrication instructions. See WP 0114 for expendable supplies and materials needed for lubrication.

Rear Leveling-Support Jack Lubrication

The rear leveling-support jack is a modification to the standard 1 1/2 ton trailer chassis, the standard 1 ton trailer chassis, and the light tactical trailer chassis. Lubrication of this rear leveling-support jack is not covered in the trailer TMs. See Figure 1 and lubricate the rear leveling-support jack semiannually, as follows:

WARNING

Solvent used to clean parts is potentially dangerous to personnel and property. Clean parts in a well-ventilated area. Avoid inhalation of solvent fumes. Wear goggles and rubber gloves to protect eyes and skin. Wash exposed skin thoroughly. Do not smoke or use near open flame or excessive heat. Failure to comply with this warning can cause severe personal injury and/or damage to equipment.

1. Clean the lubrication fitting (1) with solvent. Expendable supplies and materials needed for lubrication are listed in WP 0114.

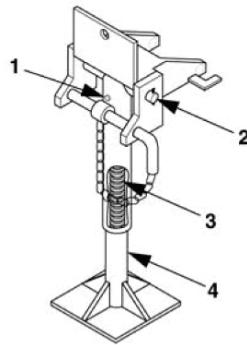


Figure 1. Rear Leveling-Support Jack Lubrication Points.

2. Inject sufficient grease, artillery and automotive (GAA) into lubrication fitting (1) to lubricate screw threads (3) inside leg base (4).
3. Apply OE lubricating oil to both ends of rear leveling-support jack pivot shaft (2).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****FIELD MAINTENANCE**

INITIAL SETUP:**References**

TM 9-6115-641-24
TM 9-2815-252-24
TM 9-2330-202-14&P (1 Ton Trailer)
TM 9-2330-213-14&P (1½ Ton Trailer)
TM 9-2330-392-14&P (Light Tactical Trailer)

MAINTENANCE OF GENERATOR SETS

Refer to generator TM 9-6115-641-24 and engine TM 9-2815-252-24.

MAINTENANCE OF TRAILERS

Refer to TM 9-2330-202-14&P for Power Plant, AN/MJQ-35 and Power Unit, PU-797, TM 9-2330-392-14&P for Power Plant, AN/MJQ-35A and Power Unit PU-797A, and TM 9-2330-213-14&P for Power Plant, AN/MJQ-36.

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****POWER CABLE: TEST, REMOVAL, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter, (WP 0111, Table 2, Item 2)

Equipment Condition

Both generator sets shut down; (Refer to WP 0005, Stopping Power Plant Set.)

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

TEST AND INSPECTION

1. Release two clamping catches (Figure 1, Item 11) and open switch box cover (1).

NOTE

Cable leads L1, L2, and L3 terminate in switch box at contactor K1 for Generator 1 (front) and contactor K2 for Generator 2 (rear). N and Ground leads terminate at switch box load terminals.

2. Disconnect power cable to be tested from generator set load terminals (Figure 2, Item 2).
3. Use multimeter to check continuity of each electrical lead in power cable. Each lead should have continuity between bare end of conductor at generator set load terminal and terminal lug (9). Check for continuity between lead marked ground and switch box ground load terminal, lead marked N and switch box N load terminal, lead marked L1 and contactor terminal A1, lead marked L2 and contactor terminal B1, and lead marked L3 and contactor terminal C1. If no continuity, cable is defective and must be repaired or replaced.

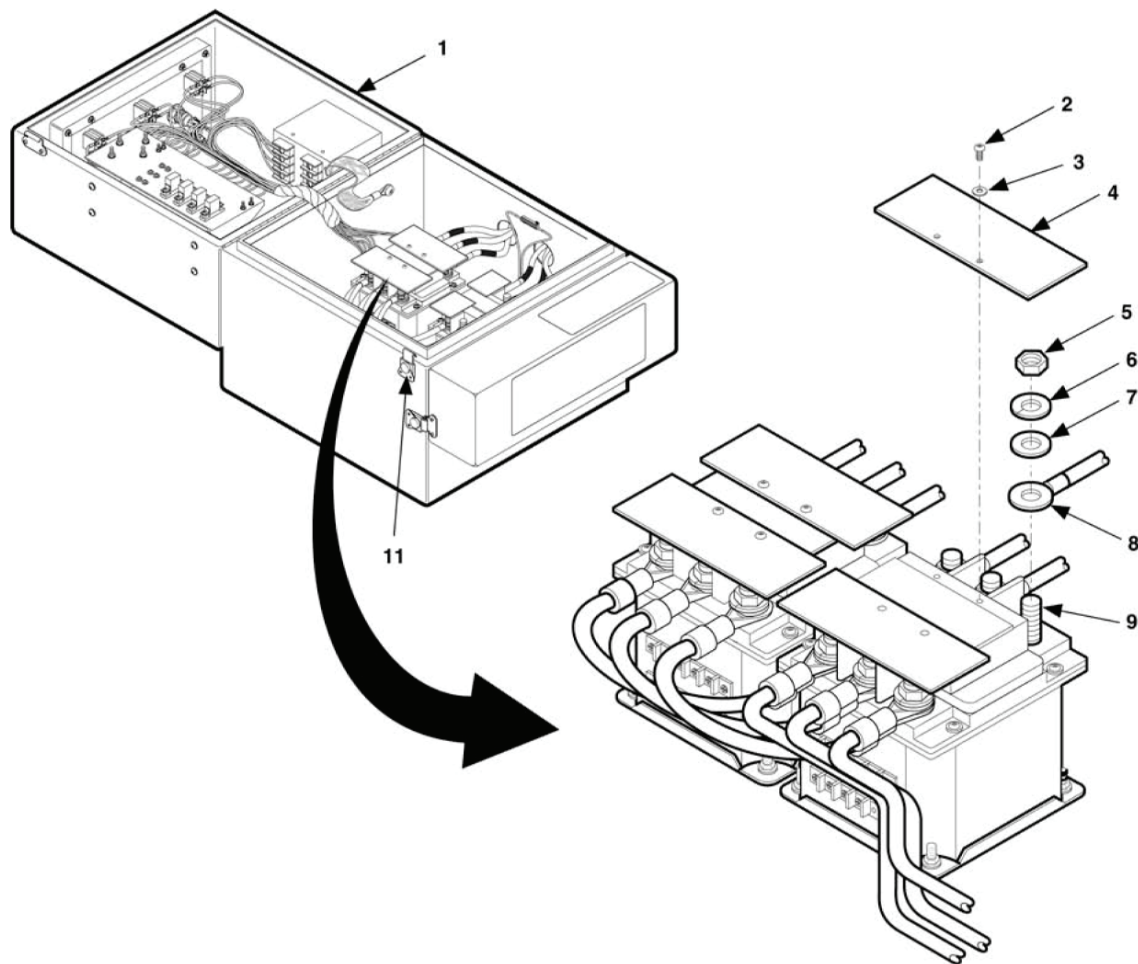


Figure 1. Power Cable Connections to Switch Box Contactors.

4. Use multimeter to check for shorts in power cable. Check for continuity between ground and N, L1, L2, and L3; N and L1, L2, and L3; L1, and L3; and L2 and L3. No continuity reading on meter in any of these tests indicates a shorted cable which must be replaced.
5. Close switch box cover (1) and secure with clamping catches (11).

END OF TASK

REMOVAL

1. Disconnect electrical leads (1) or (2) and ground lead from generator set.
2. Pull power cable from stuffing tube (11).
 - a. Remove stuffing tube compression nut (Figure 2, Item 8) from stuffing tube body (11).

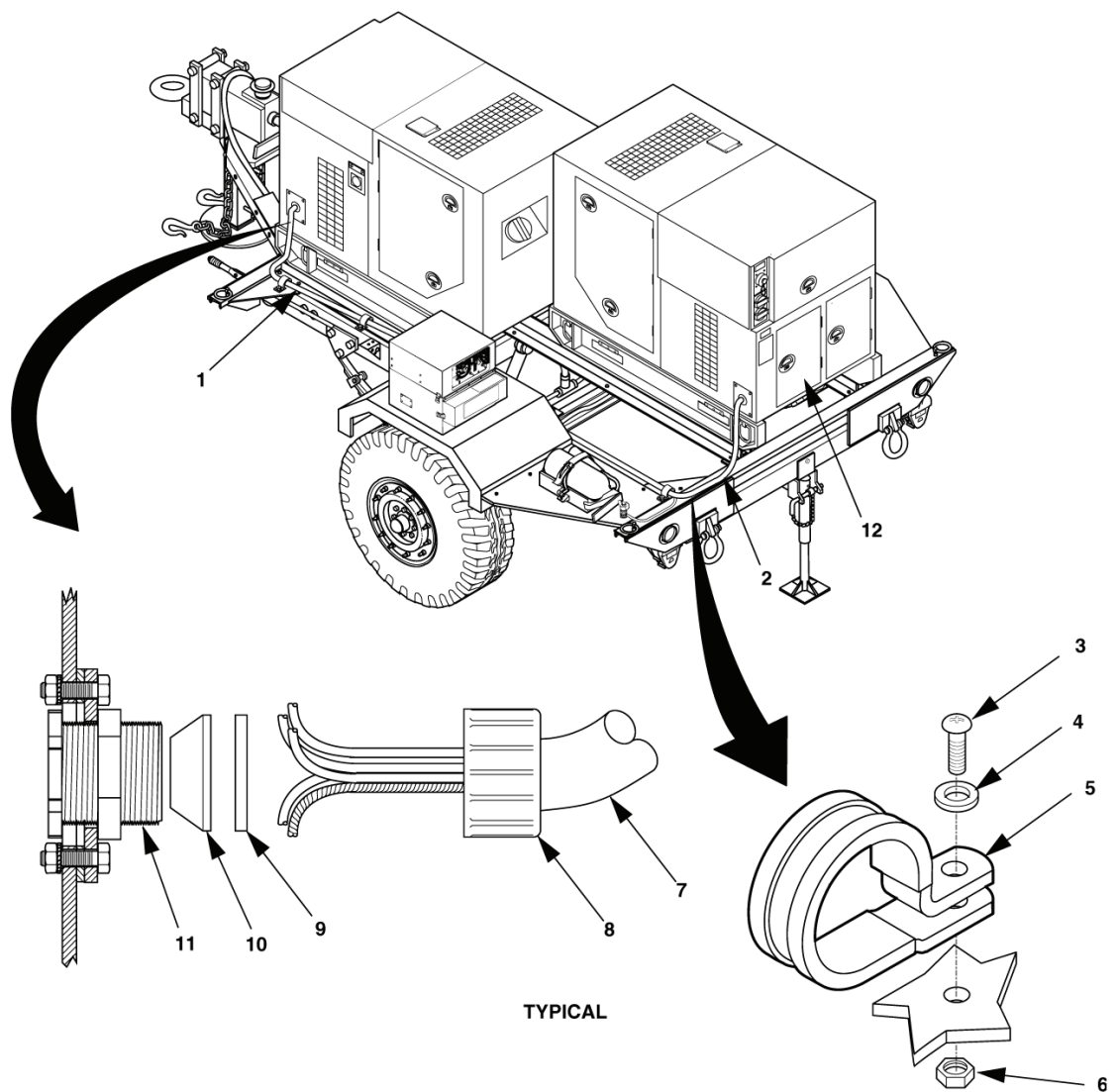


Figure 2. Disconnect Power Cable from Generator Set.

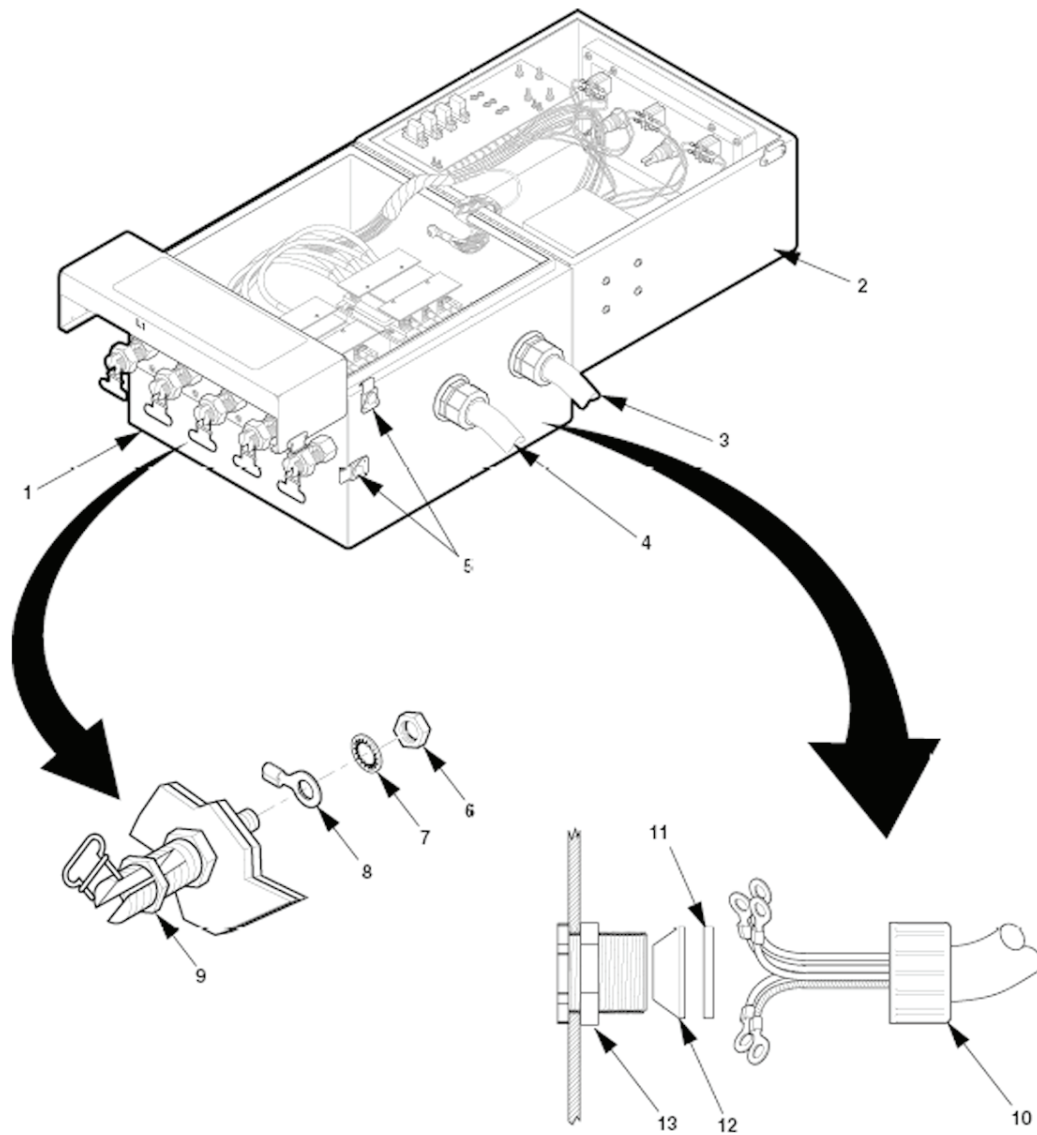


Figure 3. Disconnect Power Cable From Switch Box (NEW) Terminals.

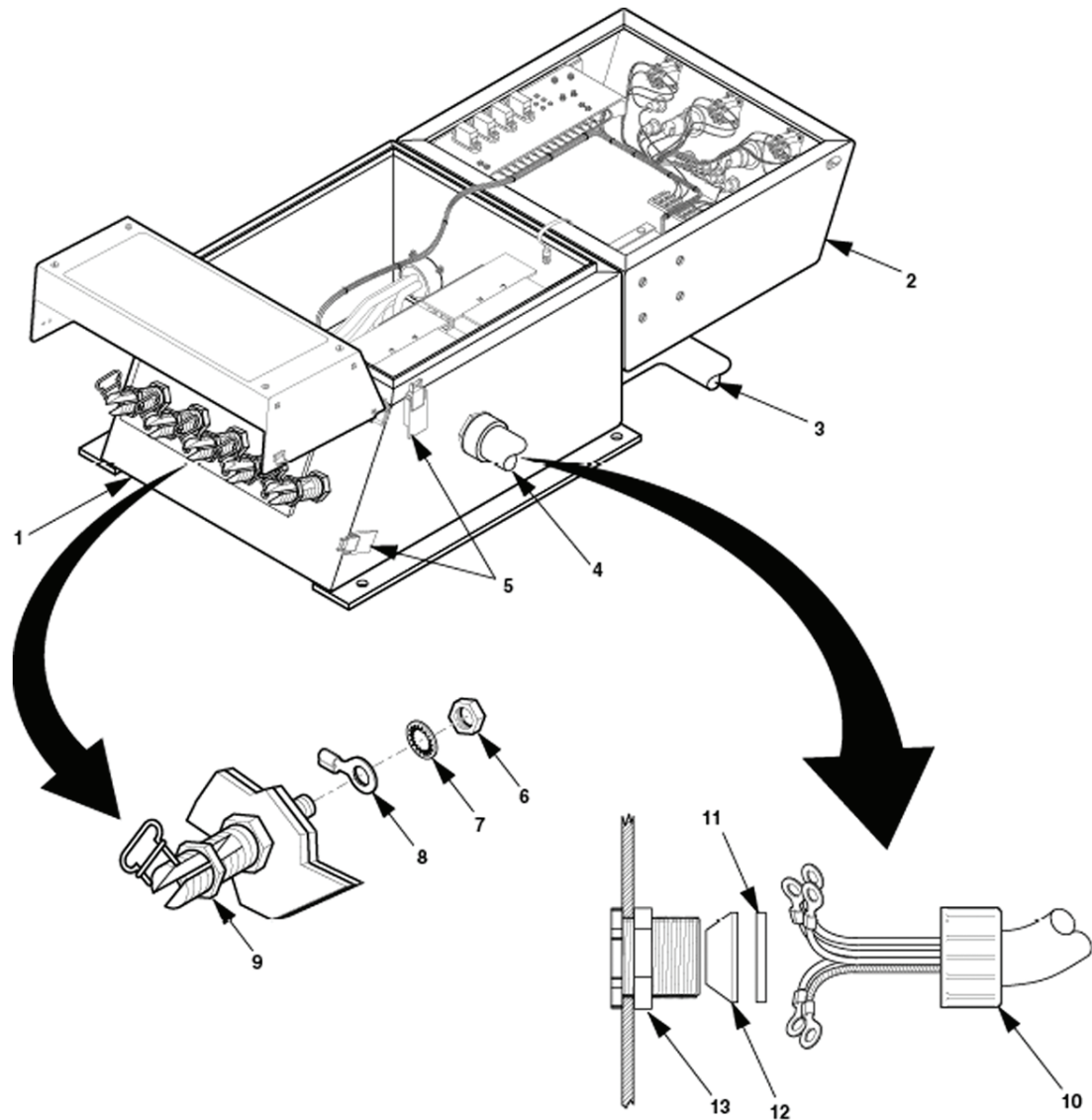


Figure 4. Disconnect Power Cable From Switch Box (OLD) Terminal.

- b. Pull power cable (1) or (2) through stuffing tube until ends of power cable are free of stuffing tube body (11).
- c. Remove washer (9), seal (10), and stuffing tube compression nut (8) from power cable (1) or (2). Place items back on stuffing tube and tighten.
3. Disconnect power cable from switch box.
 - a. Release clamping catches (Figure 1, Item 11) and open switch box cover (1).
 - b. Remove two screws (2) and lock washers (3) from contactor terminal shield (4) of contactor associated with power cable being removed.
 - c. Remove contactor terminal shield (4).
 - d. Remove nuts (5), lock washers (6), and flat washers (7) from contactor terminals (9).

- e. Lift terminal leads (8) from contactor terminals (9). Remove only the terminal leads associated with electrical leads of power cable being removed. If necessary to remove other terminal leads to access those for power cable being disconnected, reinstall other terminal leads onto contactor terminals (9).
 - f. Install flat washers (7), lock washers (6), and terminal nuts (5) on contactor terminals (9).
 - g. Remove hex nuts (Figure 3, Item 6) and internal tooth washers (7) from ground and N terminals (9) of switch box.
 - h. Remove only the wire associated with the power cable being replaced. If necessary to remove other terminal leads to access those for power cable, reinstall other terminal leads on terminal (9).
 - i. Place internal tooth washers (7) over the end of terminals (9) and loosely install the hex nuts (6).
 - j. Remove stuffing tube compression nut (10) from stuffing tube body (13).
 - k. Pull power cable (3 or 4) through stuffing tube (13) until ends of power cable are free of stuffing tube body (13).
 - l. Remove washer (11), seal (12), and stuffing tube compression nut (10) from power cable (3 or 4). Place items back on stuffing tube and tighten.
4. Remove power cable from clamps.
- a. Remove self-locking nuts (Figure 2, Item 6), screws (3), and flat washers (4) securing clamps (5) to trailer. Remove cable (3 or 4).
 - b. Remove clamps (Figure 3, Item 5) off power cable (3 or 4).

END OF TASK

INSTALLATION

1. Install stuffing tube compression nut (Figure 3, Item 10), washer (11), and seal (12) on end of power cable (3 or 4) having leads with terminal lugs.
2. Insert terminal lug end of power cable (3 or 4) into stuffing tube assembly (13) and slide forward until end of power cable outer covering is visible inside switchbox (1).
3. Slide seal (12), washer (11), and stuffing tube compression nut (10) forward and tighten compression nut.
4. Remove hex nut (6) and internal tooth washer (7) from load terminal N (9) and install lead marked N.
5. Install internal tooth washer (7) and hex nut (6). Tighten hex nut.
6. Repeat steps 4 and 5 for ground terminal and ground lead.
7. Remove nuts (Figure 1, Item 5), lock washers (6), and flat washers (7) from contactor terminal (9) of contactor associated with power cable being installed.
8. Connect power cable lead marked L1 to contactor terminal A2, lead marked L2 to contactor terminal B2, and lead marked L3 to contactor terminal C2.
9. Install flat washers (7), lock washers (6), and nuts (5) on contactor terminals (9). Tighten nuts.
10. Install contactor terminal shield (4), lock washers (3), and screws (2).
11. Close switch box cover (1) and secure with clamping catches (11).
12. Repeat steps 1, 2, and 3 above and install other end of power cable in stuffing tube on generator set.
13. Connect leads to generator set load terminals as follows:

Lead Marked	to	Generator Set Load Terminal
Ground		Ground
N		N
L1		L1
L2		L2
L3		L3

14. Place clamps (Figure 3, Item 5) on replacement power cable (3 or 4) and existing ground wire going from switch box ground terminal and trailer ground stud, and install flat washers (Figure 2, Item 4), screws (3), and self-locking nuts (6).

END OF TASK

REPLACEMENT

Replace procedures are the same as Remove and Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
SWITCH BOX (OLD): INSPECT, REPLACE, REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
1/4 Inch Drill (WP 0111, Table 2, Item 5)
Blind Head Riveter (WP 0111, Table 2, Item 3)

Materials/Parts

Blind Rivets
Gasket
Lock Washers (AN/MJQ-35A only) (WP 0115, Table 1, Item 1)

References

Power Cable Maintenance (WP 0020)
Switch Box Gasket (WP 0068)

Equipment Condition

Both generator sets shut down, WP 0005, Stopping Power Plant Set. Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered; WP 0005, Positioning Power Plant/Power Unit, Power cables and ground disconnected from switch box; WP 0020

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

TEST AND INSPECTION

1. Release clamping catches (Figure 1, Item 5) and open switch box cover (9).
2. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next higher level of maintenance.
3. Inspect all leads and wires for loose or disconnected terminal lugs. If found, repair and/or notify next higher level of maintenance.
4. Inspect all terminals for looseness. Tighten as needed.
5. Inspect all component mountings for looseness. Tighten as needed.
6. Inspect gasket (10) on switch box. If required, replace gasket (WP 0068, Figure 1).

7. Close switch box cover (9) and secure with clamping catches (5).

END OF TASK

REPLACEMENT

1. CLAMPING CATCH REPLACEMENT.
 - a. Drill out rivets (1) and remove defective clamping catch (2).
 - b. Position new clamping catch (2) and secure with rivets (1).
2. DATA PLATE REPLACEMENT.
 - a. Drill out rivets (7) and remove schematic diagram data plate (8).
 - b. Position new schematic diagram data plate (8) and secure with blind rivets (7).
3. GASKET REPLACEMENT.
 - a. Remove old gasket (10) from switch box and scrape surface to remove old cement.
 - b. Cut new gasket material and cement to switch box. Refer to WP 0068, Figure 1.
4. STUFFING TUBE REPLACEMENT.
 - a. Unscrew locknut (11) from stuffing tube body (12) of stuffing tube and remove from switch box.
 - b. Insert stuffing tube body (12) through hole in switch box and secure with locknut (11).

END OF TASK

NOTE

Switch box mounting hardware for AN/MJQ-35A (plain nuts, lock washers, flat washers, and cap screws) differs from that used on other power plants but removal and installation instructions are similar.

REMOVAL

1. Remove power cables and ground cable (WP 0020, Figure 4).
2. Remove four flat washers (4), and cap screws (3), securing switch box (13) to fender. Remove switch box (13).

END OF TASK

INSTALLATION

1. Position switch box (13) on trailer fender.
2. Install four cap screws (3), flat washers (4).
3. Connect power cables and ground cable (WP 0020, Figure 4).

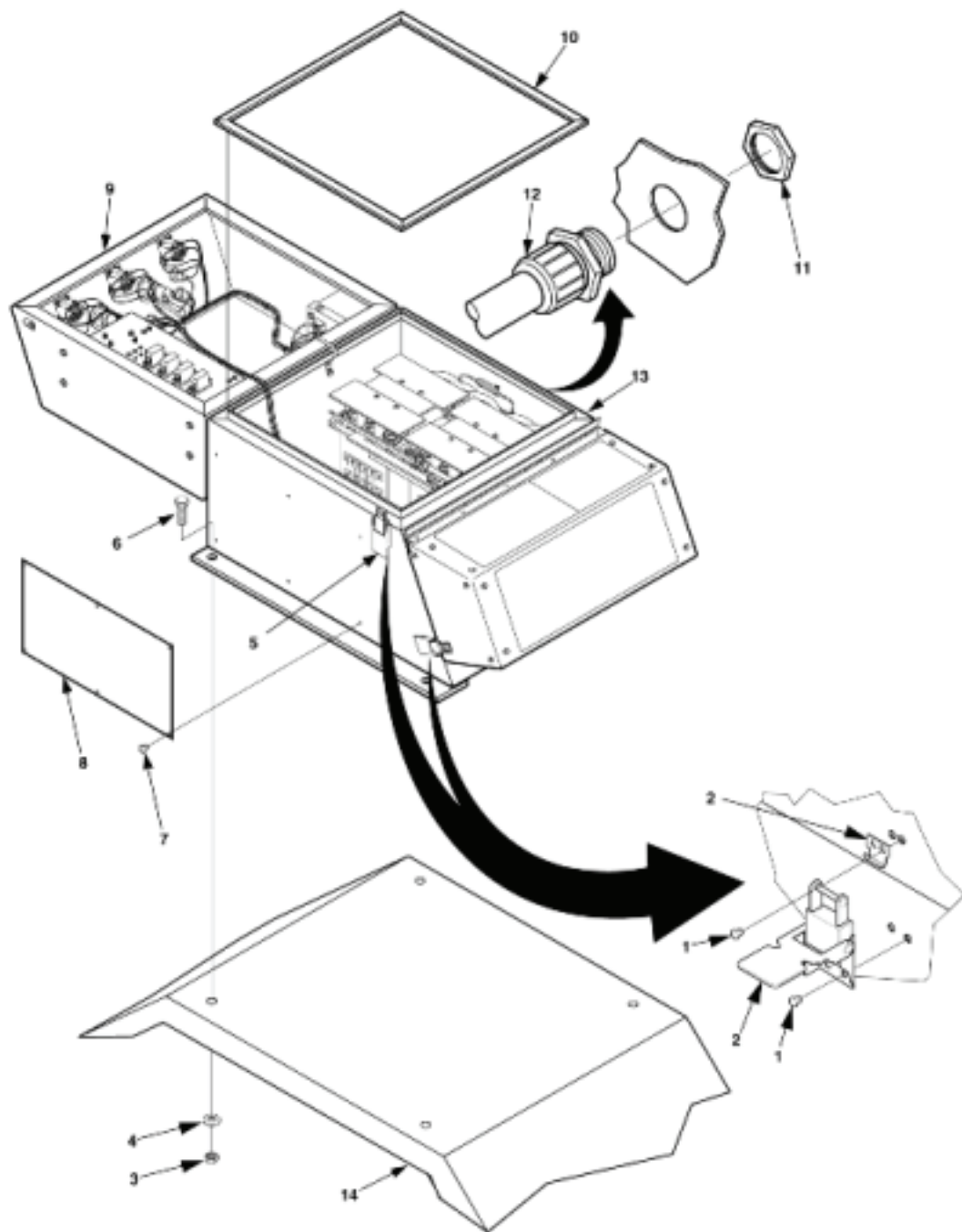


Figure 1. Switch Box Repair (OLD).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
SWITCH BOX (NEW): INSPECT, REPLACE, REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
1/4 Inch Drill (WP 0111, Table 2, Item 5)
Blind Head Riveter (WP 0111, Table 2, Item 3)

Materials/Parts

Blind Rivets
Gasket
Lock Washers (AN/MJQ-35A only) (WP 0115, Table 1, Item 1)

References

Power Cable Maintenance (WP 0020)
Switch Box Gasket (WP 0068)

Equipment Condition

Both generator sets shut down, (WP 0005, Stopping Power Plant Set). Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit). Power cables and ground disconnected from switch box; (WP 0020).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

TEST AND INSPECTION

1. Release clamping catches (Figure 1, Item 5) and open switch box cover (6).
2. Inspect all leads and wires for worn or deteriorated insulation that reveals bare spots in conductors. If found, notify next higher level of maintenance.
3. Inspect all leads and wires for loose or disconnected terminal lugs. If found, repair.
4. Inspect all terminals for looseness. Tighten as needed.
5. Inspect all component mountings for looseness. Tighten as needed.
6. Inspect gasket (7) on switch box. If required, replace gasket (WP 0068, Figure 1).

7. Close switch box cover (6) and secure with clamping catches (5).

END OF TASK

REPLACEMENT

1. CLAMPING CATCH REPLACEMENT.
 - a. Drill out rivets (1) and remove defective clamping catch (2).
 - b. Position new clamping catch (2) and secure with rivets (1).
2. GASKET REPLACEMENT.
 - a. Remove old gasket (7) from switch box and scrape surface to remove old cement.
 - b. Cut new gasket material and cement to switch box. Refer to WP 0068, Figure 1.
3. STUFFING TUBE REPLACEMENT.
 - a. Unscrew lock nut (8) from stuffing tube body (9) of stuffing tube and remove from switch box.
 - b. Insert stuffing tube body (9) through hole in switch box and secure with locknut (8).

END OF TASK

NOTE

Switch box mounting hardware for AN/MJQ-35A (plain nuts, lock washers, flat washers, and cap screws) differs from that used on other power plants but removal and installation instructions are similar.

REMOVAL

1. Remove power cables and ground cable (WP 0020).
2. Remove four flat washers (4), and cap screws (3), securing switch box (10) to fender (11). Remove switch box (10).

END OF TASK

INSTALLATION

1. Position switch box (10) on trailer fender (11).
2. Install four cap screws (3), flat washers (4).
3. Connect power cables and ground cable (WP 0020).

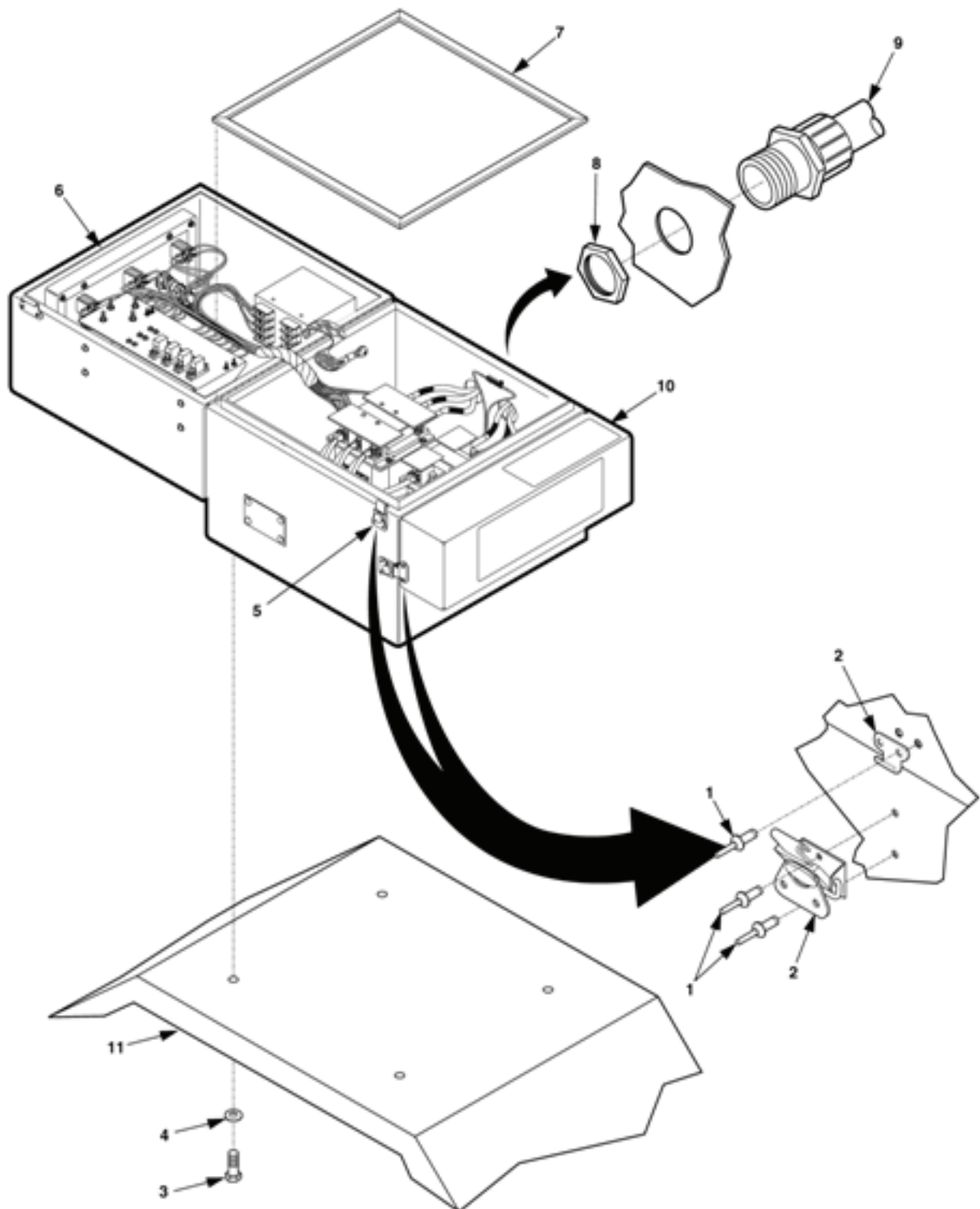


Figure 1. Switch Box Repair (NEW).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****INDICATOR LIGHT ASSEMBLY: TEST, REMOVAL, DISASSEMBLY, ASSEMBLY, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Soldering Gun GT7A-3 (WP 0111, Table 2, Item 5)
Hand Operated Terminal Crimping Tool (WP 0111, Table 2, Item 5)

Materials/Parts

Insulation Sleeving, Heat Shrinkable
Terminal, Lug, Crimp, 22-18 AWG, 0.138 Stud
Solder

References

Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set.)
Switch box cover open.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

TEST AND INSPECTION

1. Measure for continuity between terminals (Figure 1, Item 5). If continuity exists, replace lamp housing.
2. Measure for continuity of indicator light assembly leads (7) between terminals (5 and 8) in accordance with Table 1.

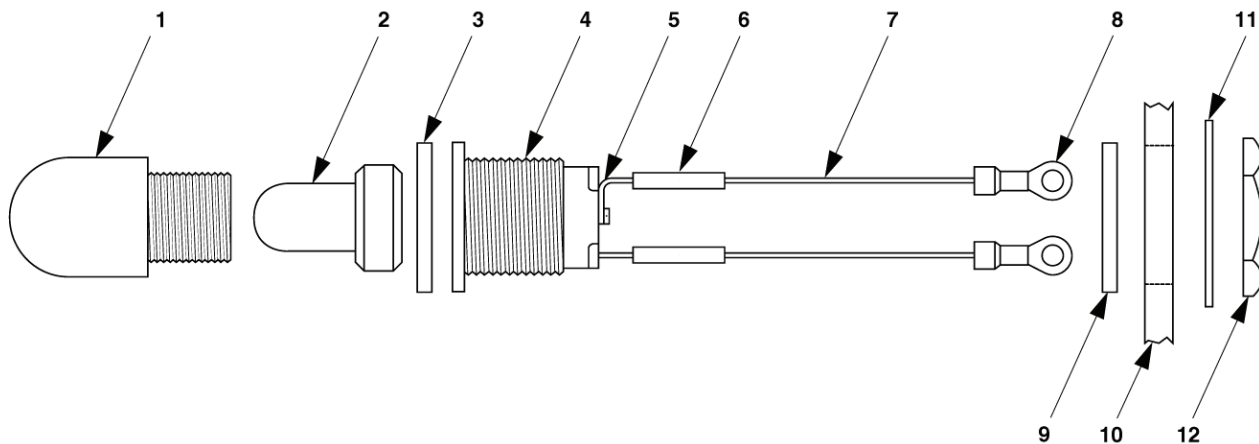


Figure 1. Indicator Light Assembly.

NOTE

Refer to F0-1 for Wiring Diagram

Table 1. Indicator Light Assembly Test Points.

FROM	TO
DS1 (center contact)	TB2-2
DS1 (side contact)	TB2-1
DS2 (side contact)	TB2-4
DS2 (center contact)	TB2-5
DS3 (side contact)	TB2-1
DS3 (center contact)	S1-3
DS3 (center contact)	TB2-4
DS4 (center contact)	S2-3

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

END OF TASK

REMOVAL

1. Unscrew lens (Figure 1, Item 1) and remove and save lens (1), lamp (2), and O-ring (3).
2. Tag and disconnect terminal leads (7) from applicable switch box components.
3. Cut wire ties as required.
4. Remove nut (12) and lock washer (11).
5. Pull housing (4) and attached parts (5 through 8) through opening in switch box cover (10).

END OF TASK**DISASSEMBLY**

1. Unscrew and remove lens (Figure 1, Item 1). Do not take O-ring (3) out of lens (1).
2. Take lamp (2) out of lens (1) or housing (4), as applicable.
3. Remove O-ring (9).
4. Cut and remove insulation sleeving (6) from both wire leads (7).
5. Unsolder and remove wire leads (7) from terminals (5).

END OF TASK**ASSEMBLY**

1. Solder one end of each wire (7) to a housing terminal (5).
2. Install insulation sleeving (6) over each soldered connection and heat shrink to a firm fit.
3. Crimp a terminal lug (8) onto end of each wire (7).
4. Install O-ring (9).

END OF TASK**INSTALLATION**

1. Insert terminal leads (Figure 1, Item 7) through opening in switch box housing (10) and pull through until O-ring (9) rests against switch box cover (10).
2. Install lock washer (11) and mounting nut (12).
3. Connect terminal lugs (8) to switch box components in accordance with Table 1.
4. Insert lamp (2) and O-ring (3) into lens (1).
5. Install lens (1) into housing (4) and hand tighten.

END OF TASK**REPLACEMENT**

Replace procedures are the same as Removal and Installation.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
SYNCHRONIZING LIGHT: TEST, REMOVAL, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

Solder

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set.)
Switch box cover open.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

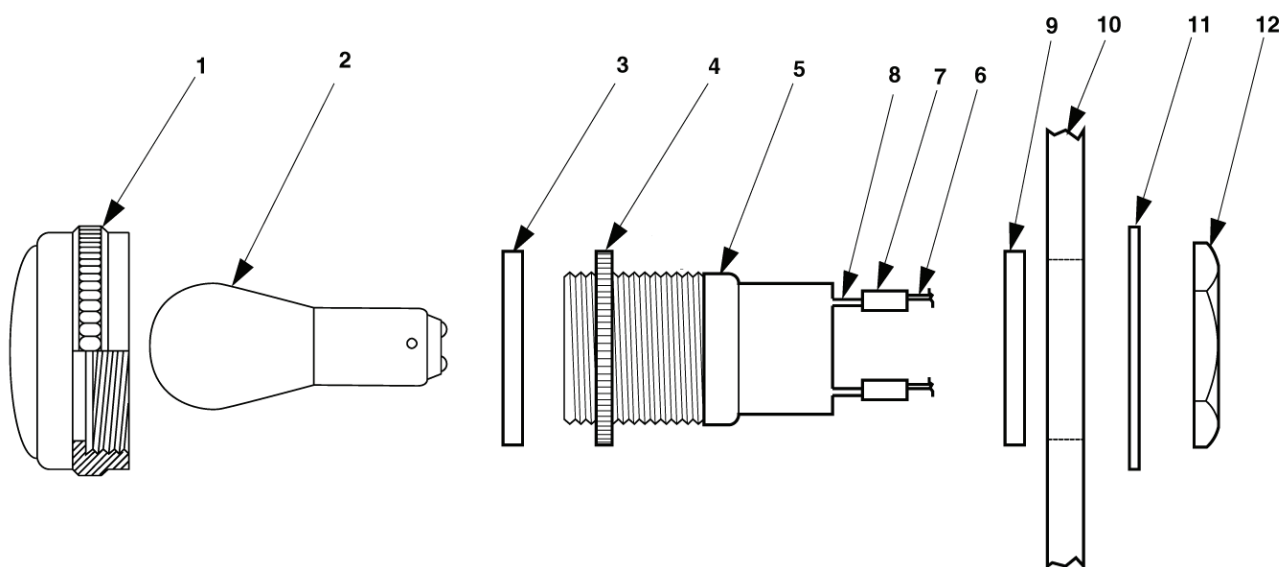


Figure 1. Synchronizing Light.

TEST AND INSPECTION

Remove lens (Figure 1, Item 1) and bulb (2) and measure for continuity between terminals (8). If continuity exists, replace lamp housing.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

END OF TASK**REMOVAL****NOTE**

The switch box has three synchronizing lights. Replacement procedures are the same for each synchronizing lights.

1. Cut and remove insulation sleeving (7) from both leads (6).
2. Tag leads (6) and unsolder.

3. Remove mounting nut (12), internal tooth lock washer (11), and housing body (5).

END OF TASK

INSTALLATION

1. Position rubber gaskets (3 and 9) against mounting collar (4). If necessary, turn mounting collar (4) until proper amount of threads are exposed for installation of lens (1).
2. Insert housing body (5) through opening in switch box cover (10).
3. Place internal tooth lock washer (11) on housing body (5).
4. Install mounting nut (12) on housing body (5). Tighten mounting nut (12) so that rubber gasket (9) seats firmly against switch box (10).
5. Install insulation sleeving (7) on each wire (6).
6. Solder tagged wires (6) to housing terminals (8).
7. Install lamp (2) into housing body (5).
8. Make sure that rubber gasket (3) is in place against mounting collar (4) and install lens (1) on housing body (5).

END OF TASK

REPLACEMENT

Replace procedures are the same as Removal and Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

TOGGLE SWITCH: TEST, REMOVAL, INSTALLATION, REPLACE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter AN/PSM-45 (WP 0111, Table 2, Item 2)

Materials/Parts

None

Equipment Condition

Both generator sets shut down, (WP 0005, Stopping Power Plant Set.)
Switch box cover open.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

TEST AND INSPECTION

NOTE

The following procedures apply to all toggle switches.

Set multimeter for continuity test. Test switches in accordance with Table 1. Replace any switch that fails test.

Table 1. Switch Continuity Test.

	S10 TRANSFER SWITCH		S1 AND S2 ON-LINE SWITCHES	
	Closed Contact	Open Contact	Closed Contact	Open Contact
On Position	1 and 2 4 and 5		2 and 3 5 and 6	
Released Position		1 and 2 4 and 5	2 and 3	5 and 6

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

END OF TASK**REMOVAL**

1. Tag wires connected to terminals of switch to be replaced and remove screws (Figure 1, Item 9), flat washers (8), and conductor bus (7), and retain conductor bus (7).
2. Remove hex nut (1), lock washer (2), locking ring (3), and switch 6.

END OF TASK**INSTALLATION**

1. Remove hex nut (1), lock washer (2), and locking ring (3).
2. Hand tighten hex nut (5) on switch.

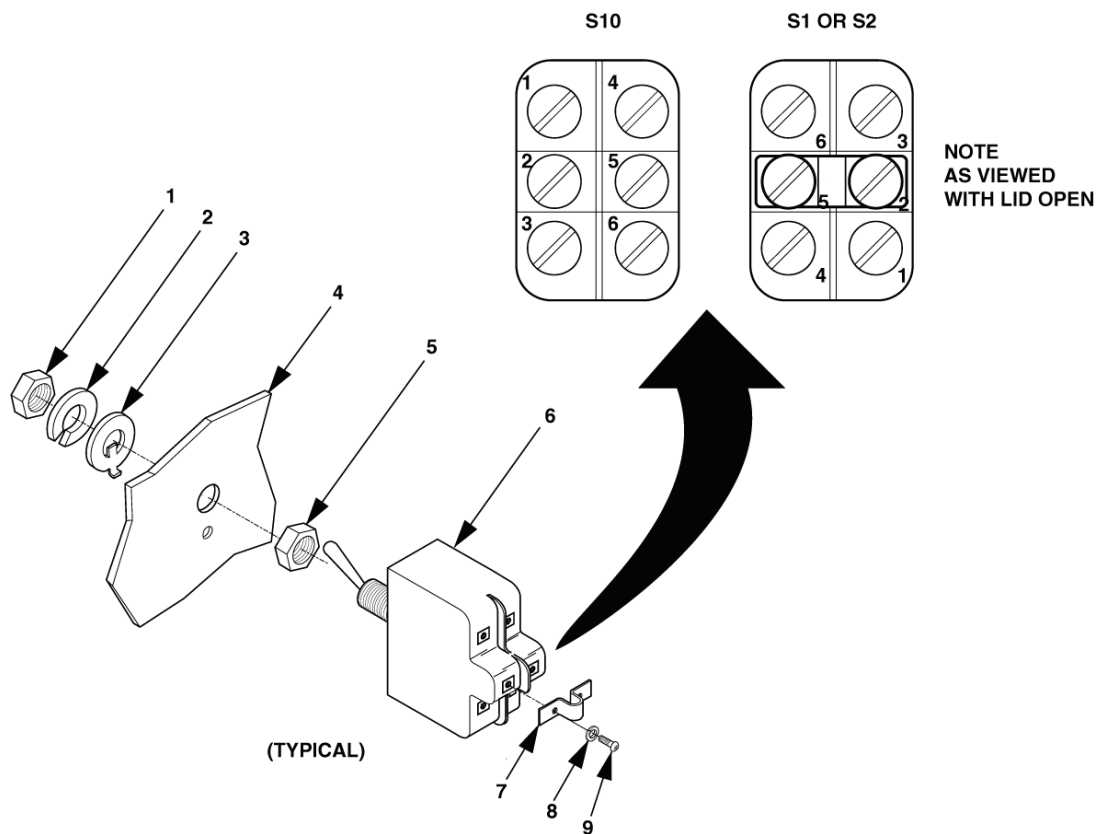


Figure 1. Toggle Switch.

NOTE

Make sure terminals 3 and 6 of switch S10 and 1 and 4 of switches S1 and S2 are toward the bottom as viewed with switch box open.

3. Insert switch body (6) into mounting hole and position hex nut (5) against mounting plate (4).

4. Install locking ring (3) into keyway of switch until alignment tip goes into mounting plate (4).
5. Install lock washer (2) against locking ring (3).
6. Install hex nut (1) and tighten making sure that locking ring (3) alignment is engaged in mounting plate (4).

NOTE

When installing new switch, conductor bus from old switch must be installed on new switch.

7. Remove and retain terminal screws (9) and washers (8) from terminals of new switch.
8. Install wires, conductor bus (7), washers (8), and terminal screws (9).

END OF TASK

REPLACEMENT

Replace procedures are the same as Removal and Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****SWITCH BOX LOAD TERMINAL: INSPECT, REMOVAL, REPAIR, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

References

Wiring Diagram (FO-1)

Materials/Parts

Wire, Round Steel, 0.072 inch diameter
QQ-W-423 Composition 302

Equipment Condition

Both generator sets shut down (WP 0005, Stopping Power Plant Set). Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit). Load cable disconnected from switch box load terminals.

TEST AND INSPECTION

Inspect for corrosion, broken terminal clip, damaged threads, etc.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before removing indicator lamp. Failure to comply with this warning can cause injury or death to personnel.

NOTE

See wiring diagram FO-1 for the number of wires on each terminal.

END OF TASK

REMOVAL

1. Release clamping catches (Figure 1, Sheet 1, Item 12) and open switch box cover (2).
2. Remove and retain hex nut (3), internal tooth lock washer (4), and leads (5) from defective terminal (8).
3. Remove and retain hex nut (6) that secures the load terminal (8) to the mounting plate (7).
4. Remove load terminal (8).

END OF TASK**REPAIR****NOTE**

If repair consists of replacing a missing or damaged terminal clip, removal of terminal is not required. Any other damage to the terminal requires replacement. The terminal clip is fabricated using bulk wire National Stock Number (NSN) 9505-00-235-5071.

1. Release clamping catch (11) and open switch box load terminal cover (1).
2. Cut two pieces of bulk wire 5 3/4 inches and 1 1/4 inches long.
3. Make sure nut (9) is installed on load terminal body (8).
4. Fabricate terminal clip (10) in accordance with Figure 1 (Sheet 2).
5. Install terminal clip (10) on load terminal (8), close switch box terminal cover (1) and secure with clamping catch (11).

NOTE

See wiring diagram FO-1 for the number of wires on each terminal.

END OF TASK**INSTALLATION**

1. Position new load terminal (8) on mounting plate so that alignment pin fits in hole provided.
2. Install and tighten the hex nut (6).
3. Install the leads (5).
4. Install internal tooth lock washer (4) and thread hex nut (3) on load terminal (8) and tighten.
5. Close switch box terminal cover (1) and switch box cover (2), and secure with clamping catches (11 and 12).

END OF TASK**REPLACEMENT**

Replace procedures are the same as Removal and Installation.

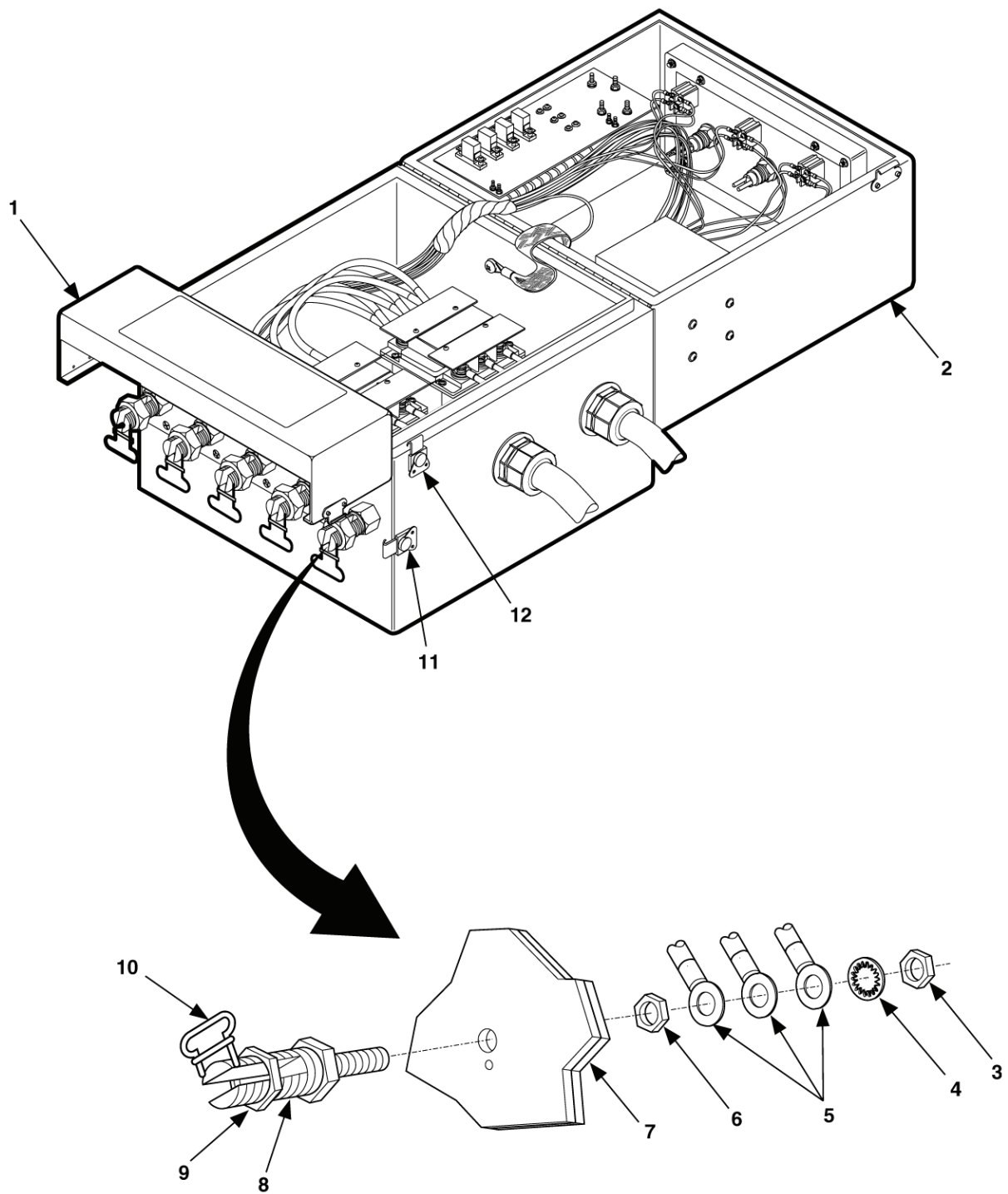


Figure 1. Switch Box Load Terminal Maintenance (Sheet 1 of 2).

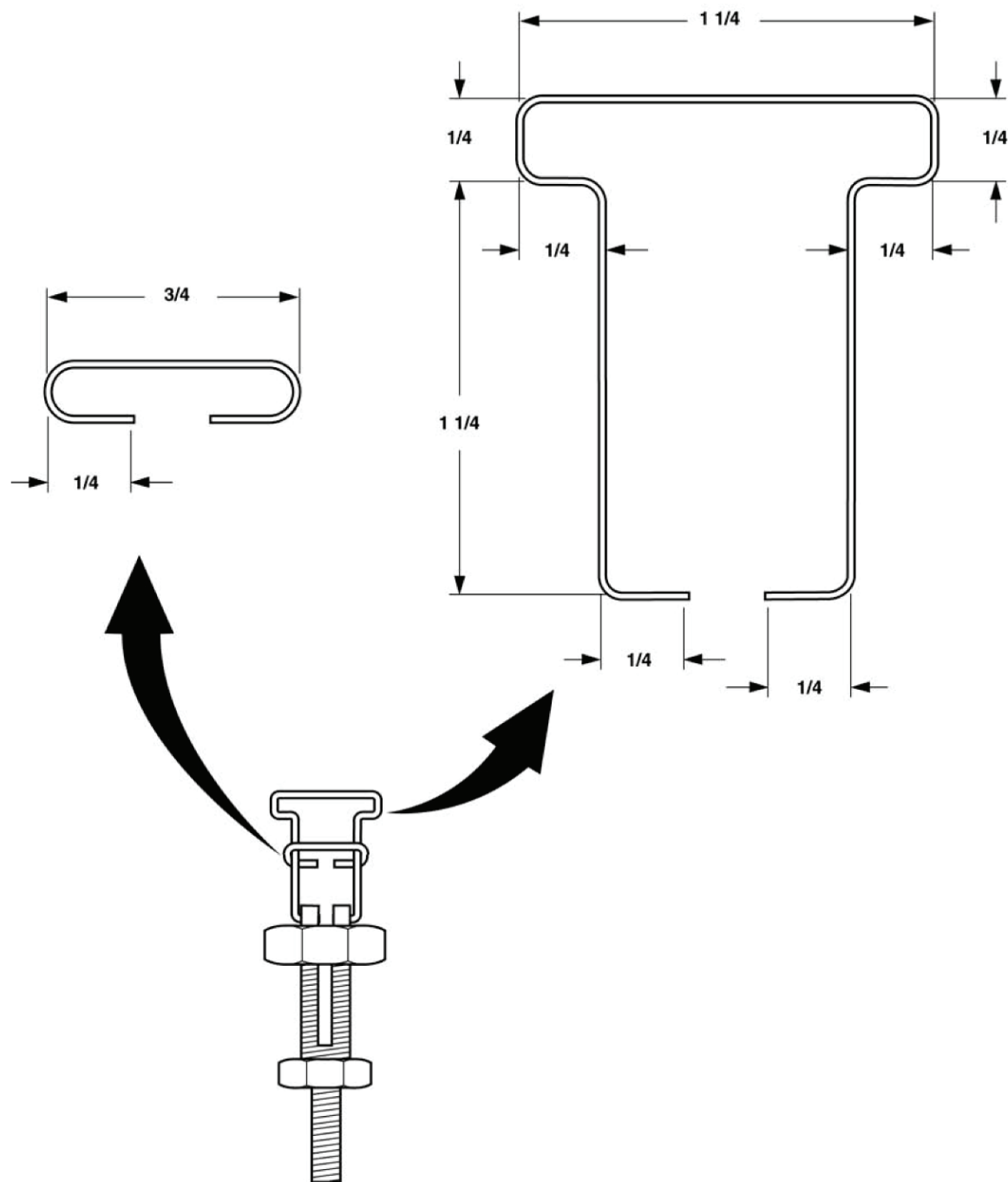


Figure 1. Switch Box Load Terminal Maintenance (Sheet 2 of 2).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN**
LOAD TERMINAL COVER (OLD): INSPECT, REMOVAL, INSTALLATION, REPLACE

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

N/A

Equipment Condition

Both generator sets shut down (WP 0005, Stopping Power Plant Set).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

TEST AND INSPECTION

Inspect for corrosion and damaged parts.

END OF TASK**REMOVAL**

1. Release clamping catches (Figure 1, Item 1) and open switch box cover (2).
2. Release clamping catches (3) and open load terminal cover (4).
3. Remove six nuts (5), lock washers (6), screws (7), and flat washers (8) and remove load terminal cover (4) and stop (9) from switch box (10).

NOTE

If replacing load terminal cover, Step 4 must be performed.

4. Remove four rivets (11) and two clamping catch strikes (12). Retain strikes for installation on new cover.

END OF TASK**INSTALLATION**

1. Install load terminal cover (4) and stop (9) on switch box (10) with six screws (7), flat washers (8), lock washers (6), and nuts (5).

2. Close load terminal cover (4) and secure with clamping catches (3).
3. Close load terminal cover (4) and secure with clamping catches (3).

END OF TASK

REPLACEMENT

Replace procedures are the same as Removal and Installation.

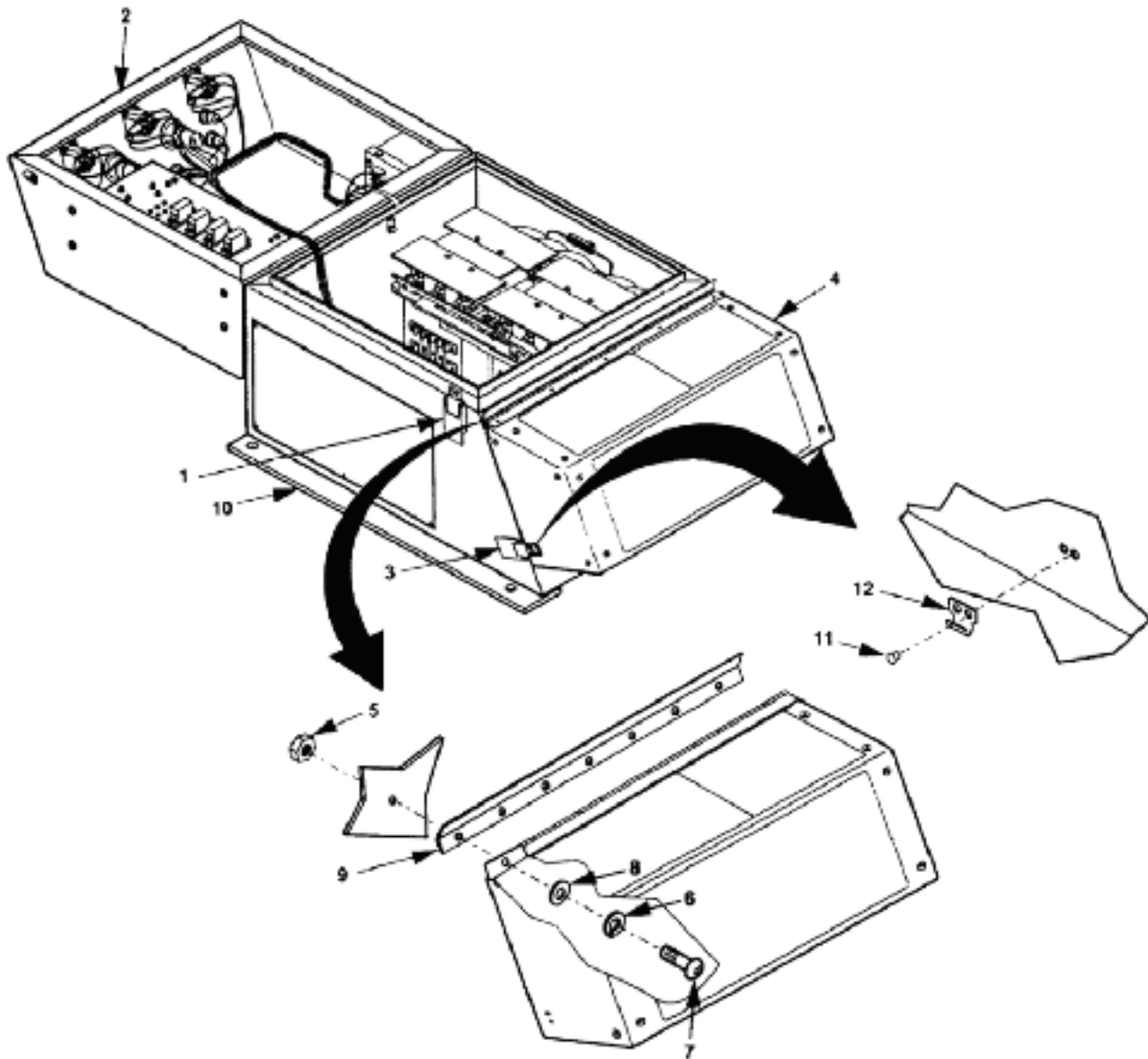


Figure 1. Load Terminal Cover (OLD).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN**
LOAD TERMINAL COVER (NEW): INSPECT, REMOVAL, INSTALLATION, REPLACE

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

N/A

Equipment Condition

Both generator sets shut down (WP 0005, Stopping Power Plant Set).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

TEST AND INSPECTION

Inspect for corrosion and damaged parts.

END OF TASK**REMOVAL**

1. Release clamping catches (Figure 1, Item 1) and open switch box cover (2).
2. Release clamping catches (3) and open load terminal cover (4).

NOTE

If replacing load terminal cover, step 3 and 4 must be performed.

3. Remove six rivets (6) and remove load terminal cover (4) from switch box (7).
4. Remove six rivets (6) from butt hinge on load terminal cover (4).
5. Remove four rivets (11) and two clamping catch strikes (12). Retain strikes for installation on new cover.

END OF TASK**INSTALLATION**

1. Install load terminal cover (4) on switch box (7) with six rivets.

2. Close load terminal cover (4) and secure with clamping catches (3).
3. Close switch box cover (2) and secure with two clamping catches (1).

END OF TASK

REPLACEMENT

Replace procedures are the same as Removal and Installation.

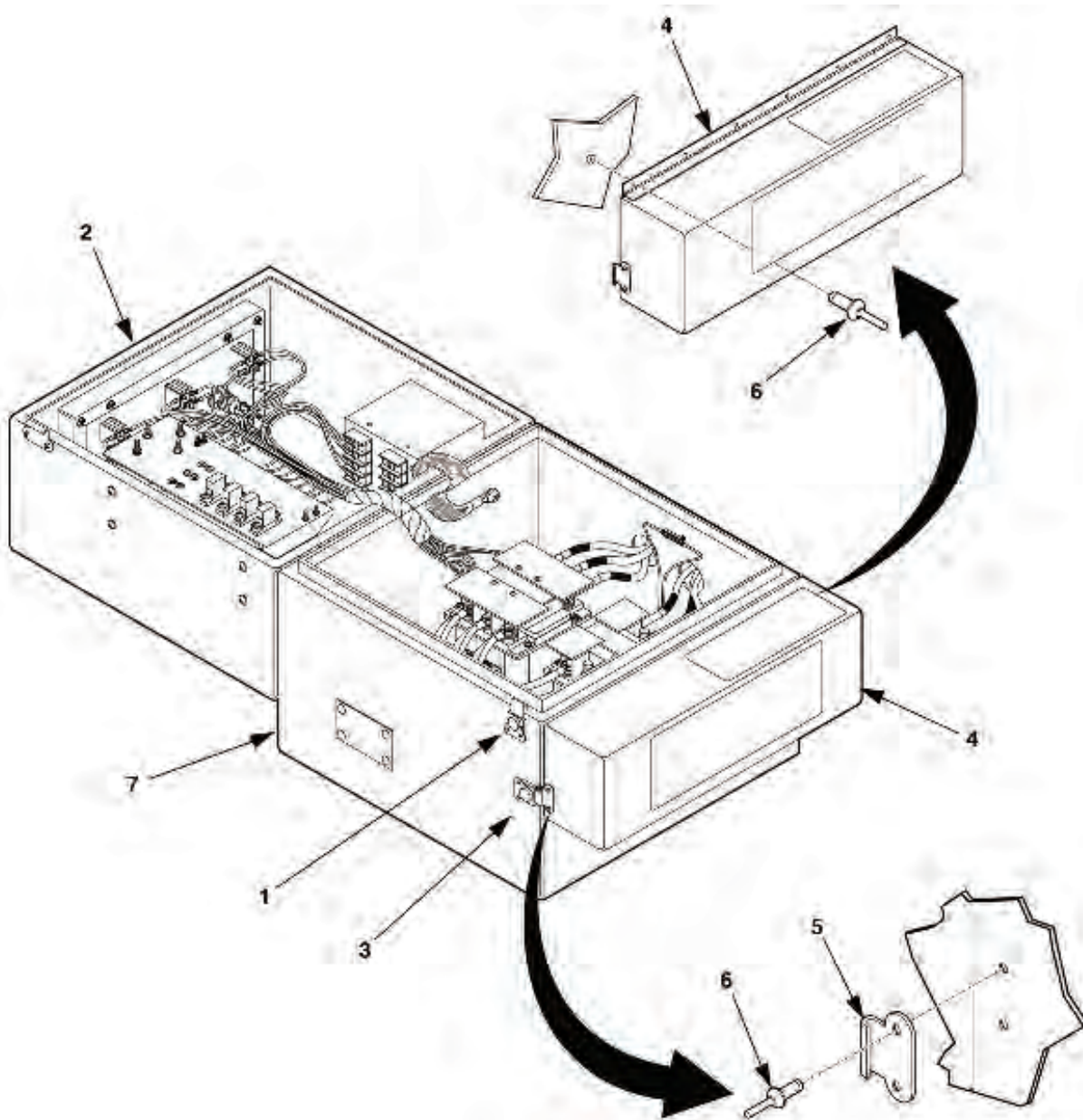


Figure 1. Load Terminal Cover (NEW).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****ACCESSORY BOX POWER PLANT/POWER UNIT: INSPECT, REMOVAL, REPAIR, REPLACE, INSTALLATION****INITIAL SETUP:****Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
1/4-inch Drill (WP 0111, Table 2, Item 5)
Blind Head Riveter (WP 0111, Table 2, Item 3)

Materials/Parts

Catch, Clamping and Strike
Rivets, Blind
Nuts, Self-locking
Hasp
Washers, Lock (WP 0115, Table 1, Item 1)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

TEST AND INSPECTION

Inspect for corrosion and damaged parts.

END OF TASK**REMOVAL**

1. Release clamping catches (Figure 1, Item 4) and open accessory box cover (1).

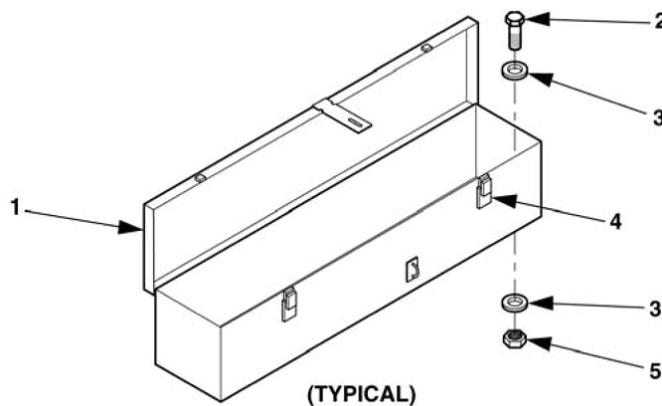


Figure 1. Replace Accessory Box.

2. Remove accessories from accessory box.

NOTE

AN/MJQ-35 accessory box is attached at three points. AN/MJQ-35A, AN/MJQ-36, PU-797, and PU-797A accessory box is attached at four points. The two forward mounting screws on AN/MJQ-35A and PU-797A accessory boxes are longer than the rear two.

3. Remove self-locking nuts (5), flat washers (3), machine bolts (2), and accessory box (1).

END OF TASK**REPAIR****NOTE**

Unit level maintenance of the accessory box consists of replacing clamping catches and hasp. Other repairs, such as straightening or welding, are performed at next higher level of maintenance.

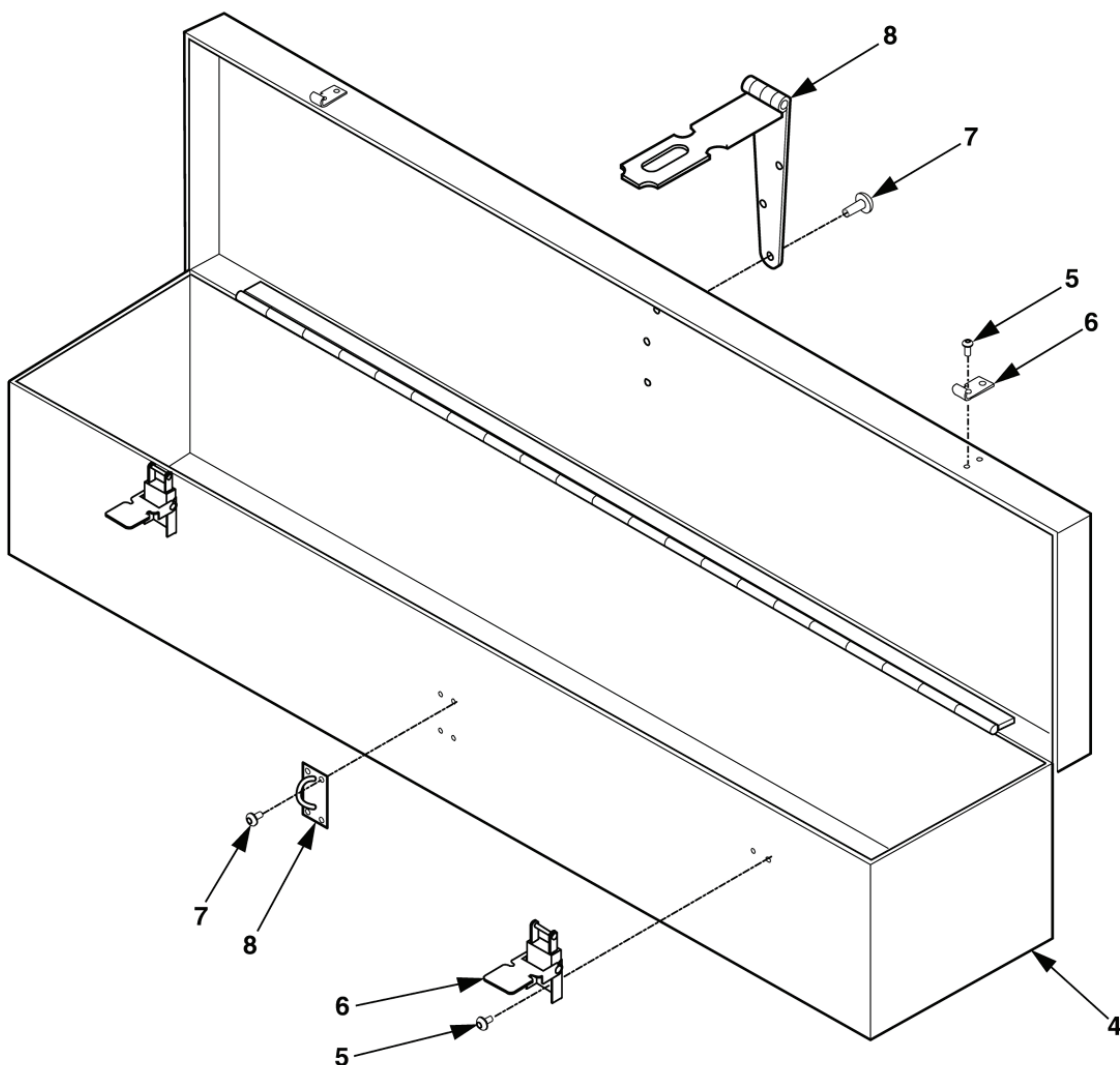


Figure 2. Repair Accessory Box.

END OF TASK**REPLACEMENT****Replace Clamping Catch**

1. Drill out rivets (Figure 2, Item 5) that secure defective clamping catch and strike (6) to accessory box (4) and remove clamping catch and strike (6).
2. Install new clamping catch and strike (6) on accessory box (4) and secure with rivets (5).

END OF TASK**Replace Hasp**

1. Drill out rivets (7) on hasp (8).
2. Install new hasp (8) on accessory box (4) with rivets (7).

END OF TASK**INSTALLATION**

1. Position accessory box (Figure 1, Item 1) over mounting holes in trailer.
2. Position accessory box (Figure 1, Item 1) over mounting holes in trailer.
3. Return accessories to accessory box.
4. Close accessory box cover and secure with clamping catches (4).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****FIRE EXTINGUISHER BRACKET: REMOVAL, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

Nuts, Self-locking
Washers, Lock

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL

1. Remove fire extinguisher from bracket.
2. Remove four self-locking nuts, flat washers, cap screws, and remove fire extinguisher bracket.

END OF TASK**INSTALLATION**

1. Install fire extinguisher bracket, four cap screws, flat washers, and self-locking nuts. Tighten self-locking nuts.
2. Place fire extinguisher in bracket.

END OF TASK**REPLACEMENT**

Replace procedures are the same as Removal and Installation.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****TRAILER LIFTING RING: REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Wrench, Torque, 800 Newton-Meter (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking

Personnel Required

Two

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL

1. Remove nut (Figure 1, Item 4), flat washer (3) and lifting ring (1) from lifting bracket (2); AN/MJQ-35 only.
2. Remove self-locking nuts (7), flat washers (6), screws (5) and mounting plate (10); AN/MJQ-36 only.
3. Remove self-locking nut (9), lock washer (12), flat washer (8), and lifting ring (11) from mounting plate (10); AN/MJQ-36 only.
4. Remove self-locking nut (9), and lifting ring (11) from chassis mounting bracket (10); LTT only.

END OF TASK**INSTALLATION**

1. Install lifting ring (1), flat washer (3) and self-locking nut (4). Set ring at an angle of $35^{\circ} \pm 5^{\circ}$ measured from line running from front to rear of trailer. With the aid of an assistant, torque to 315-347 lb-ft (427-470 N-m); AN/MJQ-35 only.
2. Install lifting ring (11), flat washer (8), lock washer (12), and nut (9) on mounting plate (10) and torque to 315-347 lb-ft (427-470 N-m).
3. Install mounting plate (10), screws (5), flat washers (6), and self-locking nuts (7).

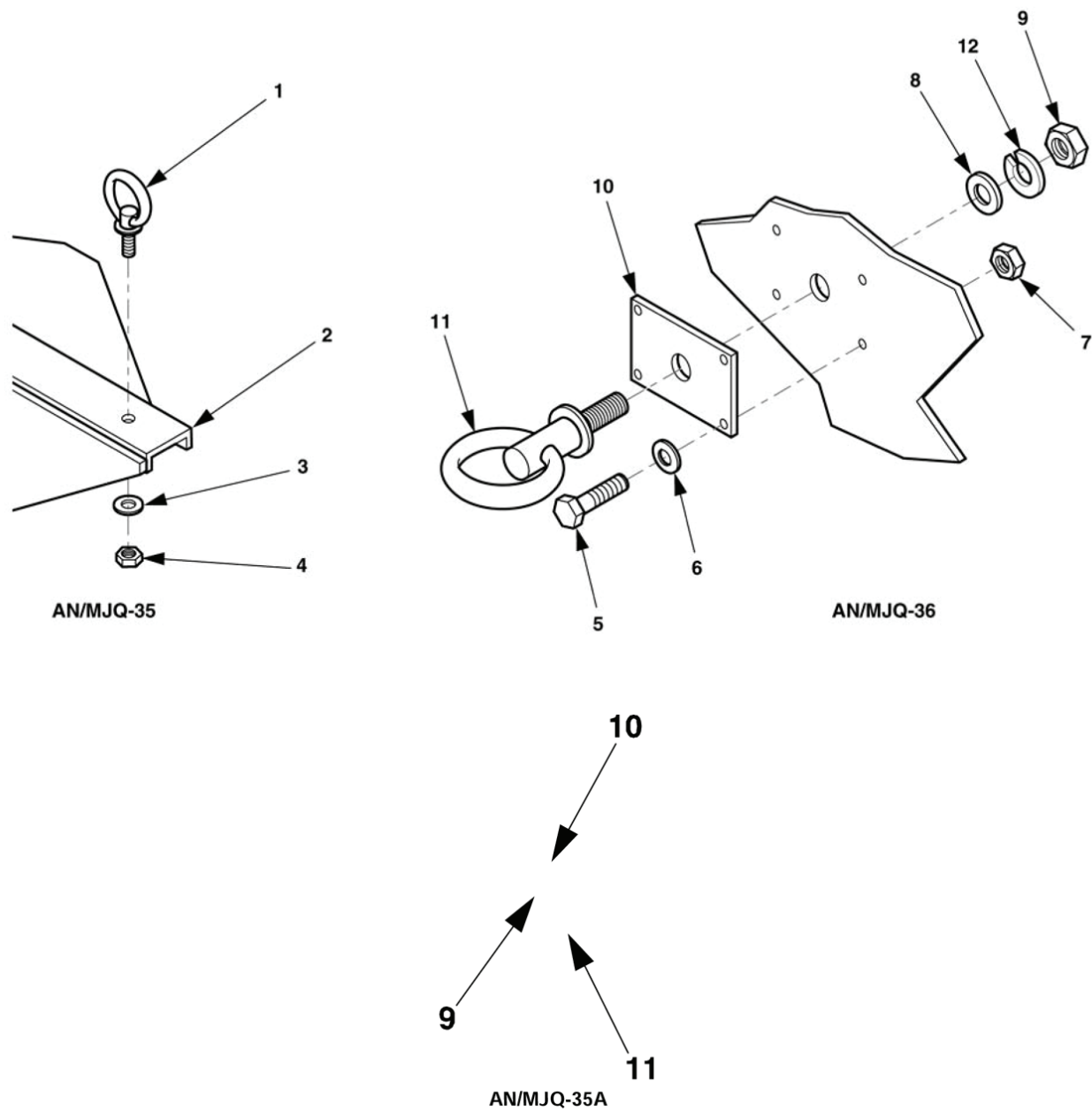


Figure 1. Replace Trailer Lifting Ring.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****DATA PLATE AND REFLECTOR: REPLACEMENT**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Drill, ¼-inch (WP 0111, Table 2, Item 5)
Drill, Twist, 3/16 (WP 0111, Table 2, Item 5)
Riveter, Blind Head (WP 0111, Table 2, Item 3)

Materials/Parts

Plate, Identification/Transportation Data
Screws, Drive
Rivets (WP 0115, Table 1, Item 3)

References

TM 9-2330-202-14&P (1 Ton Trailer)
TM 9-2330-213-14&P (1½ Ton Trailer)
TM 9-2330-392-14&P (Light Tactical Trailer)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REPLACEMENT**Replace Data Plate****NOTE**

For AN/MJQ-35 and PU-797 data plates refer to trailer chassis TM 9-2330-202-14&P. For AN/MJQ-36 data plates refer to trailer chassis TM 9-2330-213-14&P. For AN/MJQ-35A and PU-797A data plates refer to trailer chassis TM 9-2330-392-14&P.

1. Drill out rivets (Figure 1, Item 4) and remove data plate (3).
2. Position data plate (3) on trailer and install rivets (4).
3. Drill out rivets (Figure 1, Item 10) and remove IUID Plate (9).
4. Position IUID plate (9) on trailer and install rivets (10).

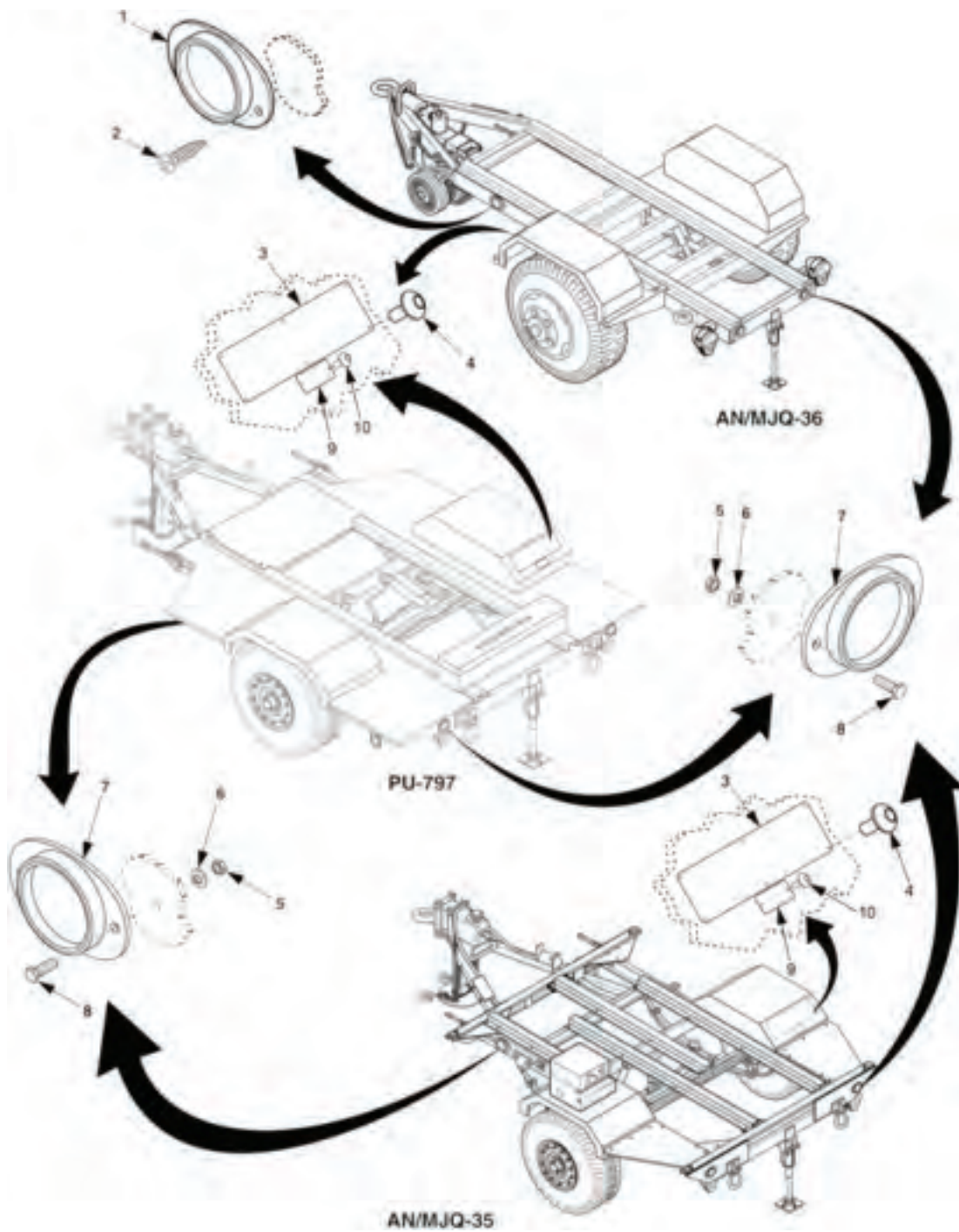


Figure 1. Identification/Transportation Data Plate and Reflector Replacement.

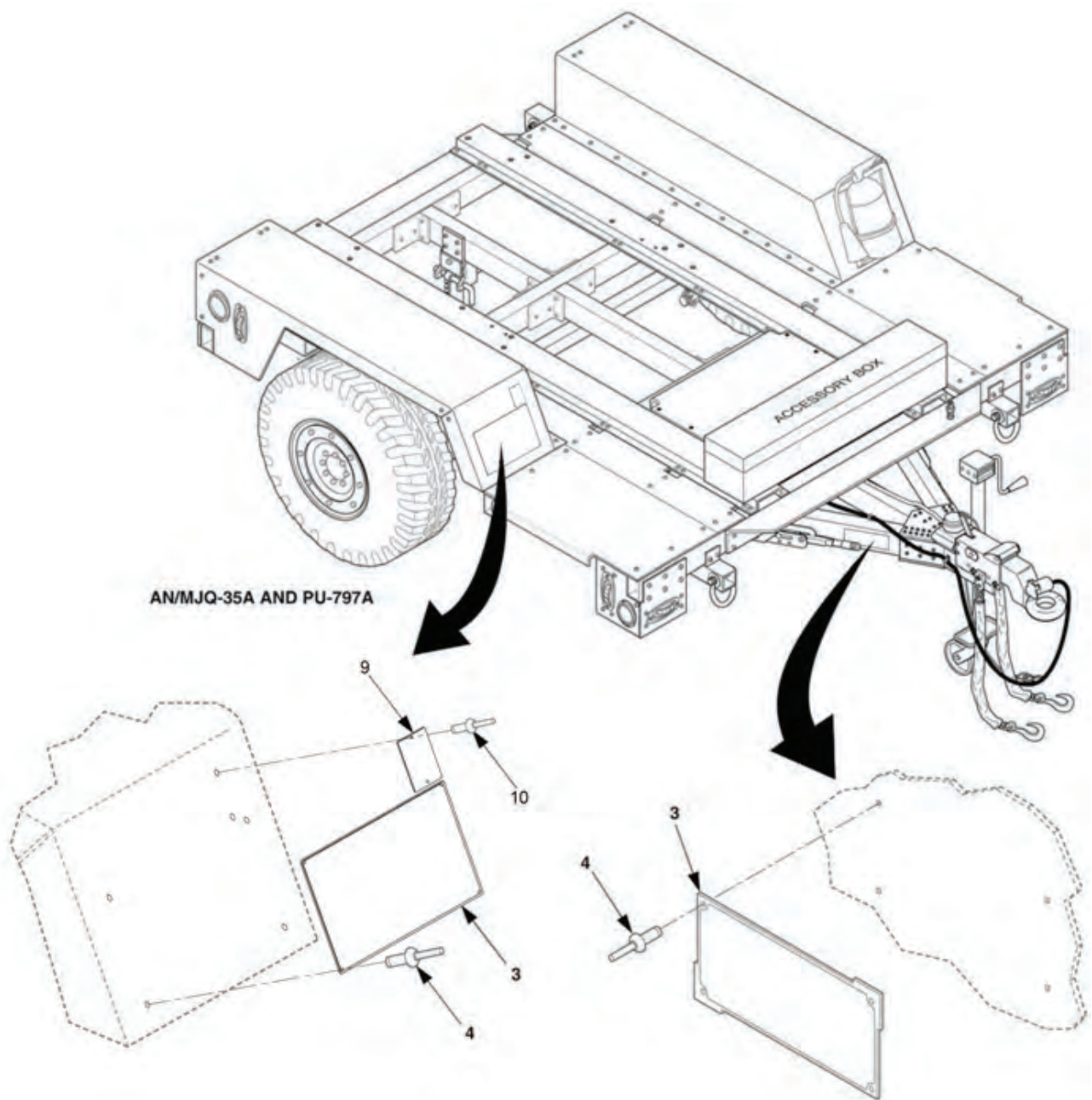


Figure 2. Shipping Data/Identification Plate Replacement (AN/MJQ-35A and PU-797A).

END OF TASK

Replace Reflectors**NOTE**

Refer to TM 9-2330-392-14&P for replacement of reflectors on AN/MJQ-35A and PU-797A.

1. Remove self-locking nuts (Figure 1, Item 5), flat washers (6), screws (8), and reflector (7) from trailer (AN/MJQ-35 and PU-797, and rear of AN/MJQ-36 only).
2. Remove self-tapping screws (2) and reflector (1) from front of trailer (AN/MJQ-36 only).
3. Install reflector, (7), screws (8), flat washers (6), and self-locking nuts (5) on trailer (AN/MJQ-35 and PU-797, and rear of AN/MJQ-36 only).
4. Install reflector (1) and self-tapping screws (2) on front of trailer (AN/MJQ-36 only).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****AN/MJQ-35 TRAILER SPLASH GUARD, BRACKET, AND FENDER: REMOVAL, INSTALLATION, REPAIR, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Drill, 1/4-inch (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking
Washer, Lock, Split-ring
Covering, Deck

References

Fire Extinguisher Bracket (WP 0030)
Data Plate Reflector (WP 0032)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered; WP 0005, Positioning Power Plant/Power Unit.
Both generator sets shut down (WP 0005, Stopping Power Plant Set).
Switch box assembly removed (WP 0021 (OLD), WP 0022 (NEW) (roadside fender only)).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

1. Remove wing nut (Figure 1, Item 13), two flat washers (14), nut (15), flat washer (16), ground cable (17), and flat washer (18).

NOTE

If replacing splash guards, ground stud and/or fire extinguisher bracket must be removed for installation on new splash guard, perform Steps 2 and/or 3. If not, proceed to Step 4.

2. Remove two nuts (19), lock washers (20), internal tooth lock washers (21), and stud (23).
3. Remove fire extinguisher bracket (WP 0030).

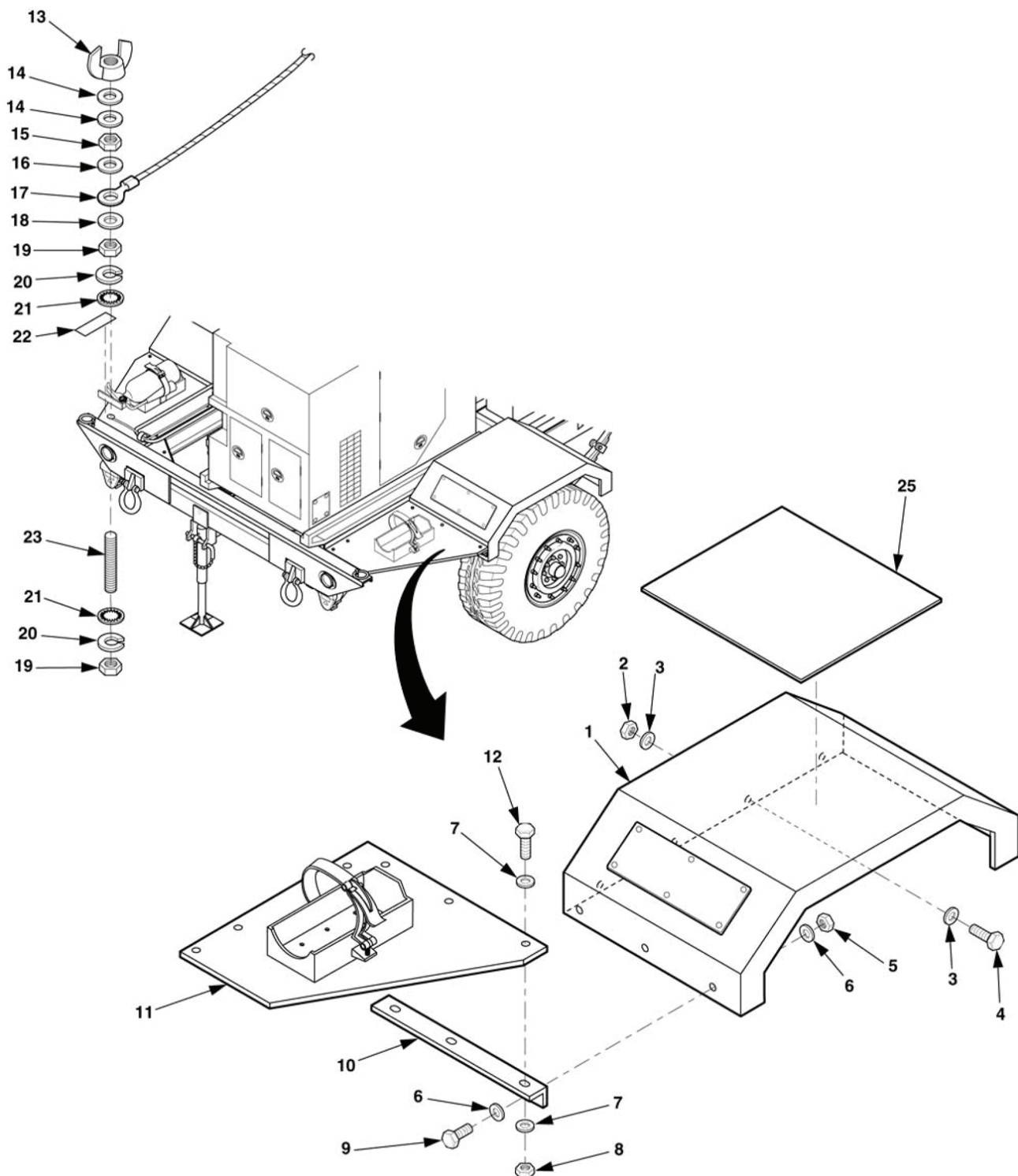


Figure 1. AN/MJQ-35 Splash Guard, Bracket, Ground Stud, and Fender.

NOTE

If replacing splash guards, ground stud and/or fire extinguisher bracket must be removed for installation on new splash guard, perform Steps 2 and/or 3. If not, proceed to Step 4.

4. Remove data plate (WP 0032).
5. Remove six self-locking nuts (Figure 1, Item 8), twelve flat washers (7), six cap screws (12), and splash guard (11).
6. Remove three self-locking nuts (5), six flat washers (6), three cap screws (9), and bracket (10).
7. Remove six self-locking nuts (2), 12 flat washer (3), six screws (4), and fender (1).

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

END OF TASK

INSTALLATION

1. Install fender (1) to trailer chassis using six cap screws (4), 12 flat washers (3), and six self-locking nuts (2).

NOTE

If new curbside fender is being installed, data plate removed during removal procedures must be installed. Perform Step 2. If not, proceed to Step 3.

2. Install data plate (WP 0032).
3. Install bracket (Figure 1, Item 10) on fender (1) using three cap screws (9), six flat washers (6), and three self-locking nuts (5).
4. Install splash guard (11) on bracket (10) and mounting rail using six cap screws (12), 12 flat washers (7), and six self-locking nuts (8).

NOTE

If new splash guard is being installed, the ground stud and/or fire extinguisher bracket removed during removal procedures must be installed. Perform Steps 5 and 6. If not, proceed to Step 7.

5. Install fire extinguisher bracket (WP 0030).
6. For roadside splash guard, install ground stud (23), two internal tooth lock washers (21), lock washers (20), nuts (19), and GROUND data plate (22).
7. Install flat washer (18), ground wire (17), flat washer (16), nut (15), two flat washers (14), and wing nut (13).

END OF TASK

REPAIR OR REPLACEMENT

NOTE

Repair is limited to replacement of non-skid material (25). Refer to WP 0067, Figure 1.

Replace procedures are the same as Remove and Installation.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

PU-797 AND AN/MJQ-36 TRAILER PLATFORM: REMOVAL, INSTALLATION, REPLACE

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

Nuts, Self-locking

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit). Both generator sets shut down (WP 0005, Stopping Power Plant Set). Accessory box assembly removed (WP 0029 (AN/MJQ-36 only)).

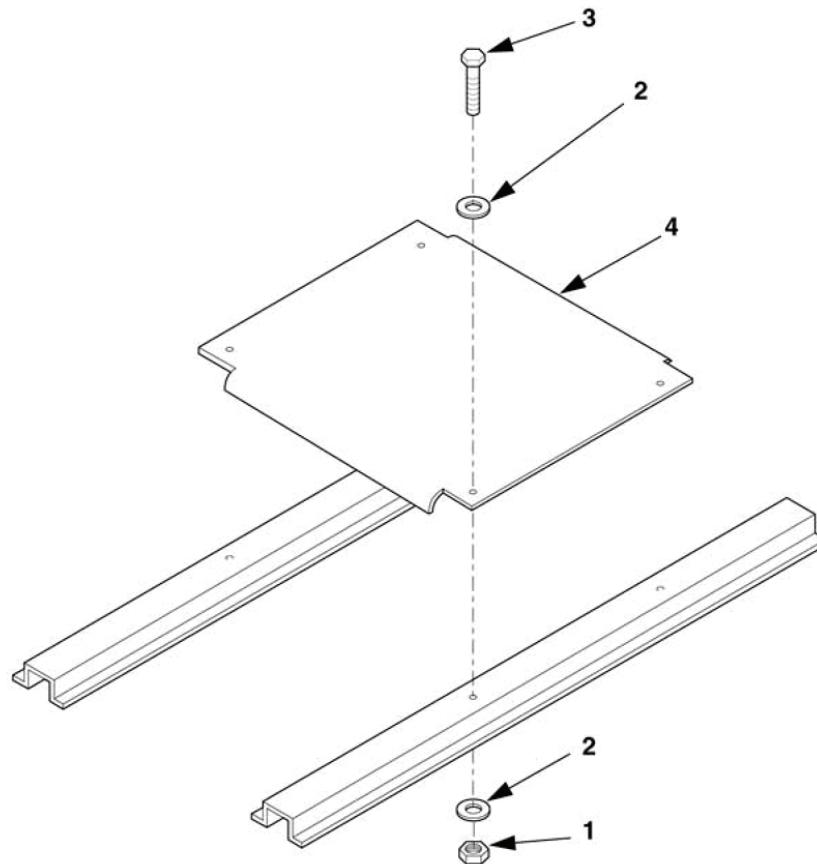


Figure 1. PU-797 and AN/MJQ-36 Trailer Platform.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

Remove four self-locking nuts (Figure 1, Item 1), eight flat washers (2), four screws (3), and trailer platform (4).

END OF TASK**INSTALLATION**

Install platform (4), four screws (3), eight flat washers (2), and four self-locking washers (1).

END OF TASK**REPLACEMENT**

Replace procedures are the same as Remove and Installation.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****PU-797 FENDER: REMOVAL, INSTALLATION, REPAIR, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Drill, 1/4-inch (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking
Washer, Lock, Split-ring
Covering, Deck

References

Fire Extinguisher Bracket (WP 0030)
Data Plate Reflector (WP 0032)
Deck Covering (WP 0067)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Both generator sets shut down (WP 0005, Stopping Power Plant Set).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

1. Remove wing nut (Figure 1, Item 8), two flat washers (9), nut (10), flat washer (11), ground cable (12), and flat washer (13).

NOTE

If fender is being replaced, fire extinguisher bracket, data plate, ground stud, and reflectors must be removed and retained for installation on new fender. If replacing roadside fender, perform Steps 2,3, 5, and 6.

2. Remove two nuts (14), lock washers (15), internal tooth lock washers (16), and ground stud (18).
3. Remove fire extinguisher bracket (WP 0030) and reflectors (WP 0032).
4. Remove data plate and reflectors (WP 0032).
5. Remove ten self-locking nuts (5), twenty flat washers (4), and ten cap screws (6).
6. Remove five self-locking nuts (3), ten flat washers (2), five cap screws (1), and fender (7).

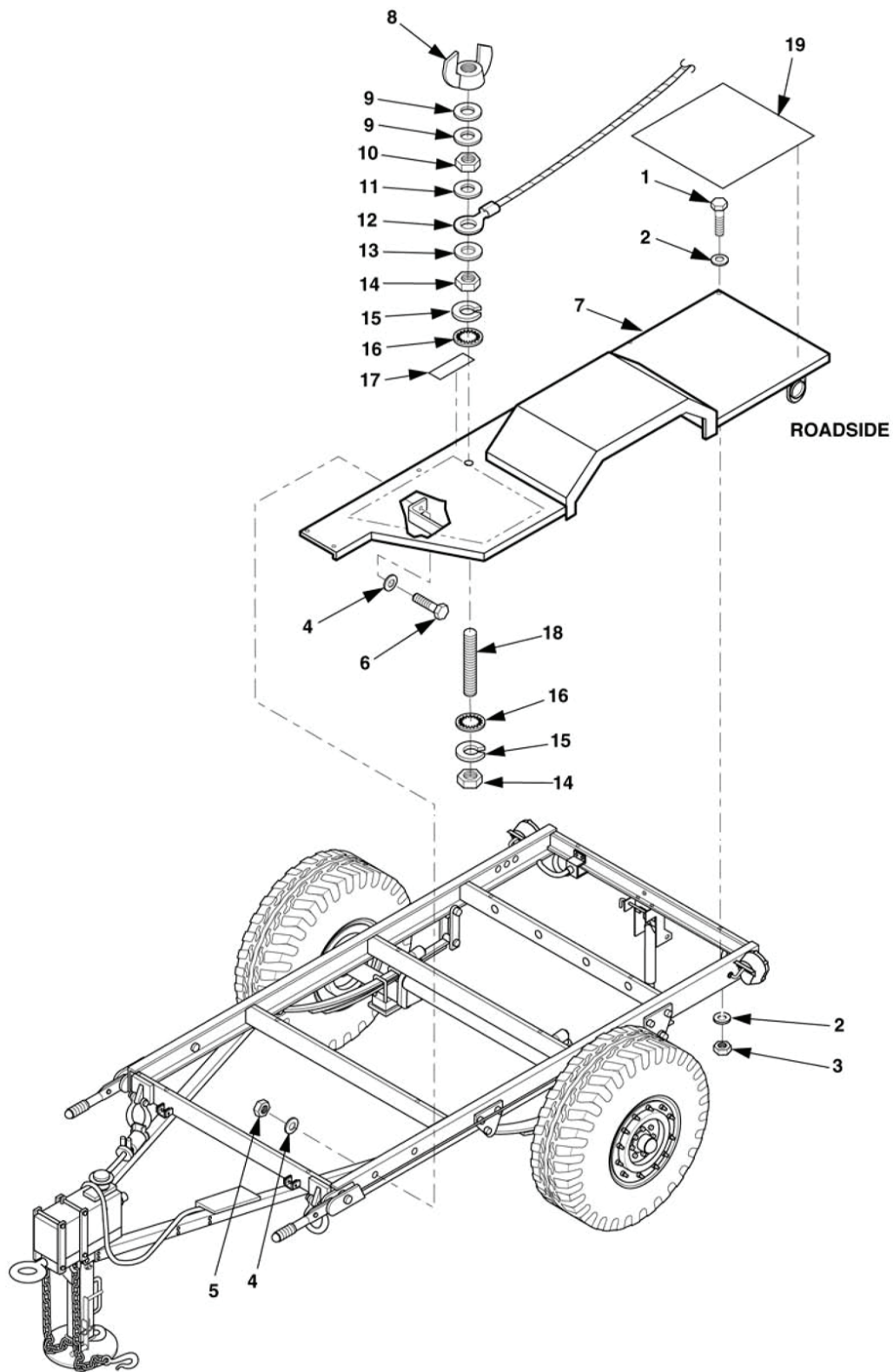


Figure 1. PU-797 Fender.

END OF TASK

INSTALLATION

1. Position fender (Figure 1, Item 7) on trailer chassis and loosely install five cap screws (1), ten flat washers (2), and five self-locking nuts (3).
2. Install and tighten ten cap screws (6), twenty flat washers (4), and ten self-locking nuts (5).
3. Tighten five self-locking nuts (3).

NOTE

If new fender(s) are being installed, fire extinguisher bracket, data plate, ground stud, and reflectors removed during removal procedures must be installed. If replacing roadside fender, perform Steps 4, 5, and 6. If not, proceed to Step 8. If replacing curbside fender, perform Steps 6 and 7.

4. Install fire extinguisher bracket (WP 0030).
5. Install ground stud (18), two internal tooth lock washers (16), lock washers (15), nuts (14), and ground data plate (17) using adhesive.
6. Install reflectors (WP 0032).
7. Install data plates (WP 0032).
8. Install flat washer (13), ground wire (12), flat washer (11), nut (10), two flat washers (9), and wing nut (8).

END OF TASK**REPAIR OR REPLACEMENT****NOTE**

Repair is limited to replacement of deck covering (19). Refer to WP 0067, Figure 1.

Replace procedures are the same as Remove and Installation.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
AN/MJQ-36 FENDER: REMOVAL, INSTALLATION, REPAIR, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Drill, 1/4-inch (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking
Covering, Deck

Personnel Required

Two

References

Fire Extinguisher Bracket (WP 0030)
Data Plate Reflector (WP 0032)
Deck Covering (WP 0067)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box removed (only if roadside fender is being replaced) (WP 0021 (OLD), WP 0022 (NEW)).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

REMOVAL

1. Remove wing nut (Figure 1, Item 9), two flat washers (10), nut (11), flat washer (12), ground cable (13), and flat washer (14).

NOTE

If fender is being replaced, fire extinguisher bracket and/or ground stud and data plate must be removed and retained for installation on new fender. If replacing roadside fender, perform Steps 2, 3, 4, 5, and 6. If replacing curbside fender, perform Steps 3, 5, and 6.

2. Remove two nuts (15), lock washers (16), internal tooth lock washers (17), and ground stud (19).
3. Remove fire extinguisher bracket (WP 0030).
4. Remove data plate (WP 0032).
5. Remove four self-locking nuts (1), eight flat washers (2), and four cap screws (3).
6. Remove five self-locking nuts (4), ten flat washers (5), five cap screws (6), and fender (7).

END OF TASK

INSTALLATION

1. Loosely install fender (Figure 1, Item 7), five screws (6), ten flat washers (5), and five self-locking nuts (4).
2. Install and tighten four cap screws (3), eight flat washers (2), and four self-locking nuts (1).
3. Tighten five self-locking nuts (4).

NOTE

If replacing fender(s), fire extinguisher bracket, and/or data plate, and ground stud removed during removal procedures must be retained and reinstalled. If replacing roadside fender, perform Steps 4, 5, 6 and 7. If replacing curbside fender, perform Step 4.

4. Install fire extinguisher bracket (WP 0030).
5. Install data plate (WP 0032).
6. Install ground stud (19), two internal tooth lock washers (17), lock washers (16), nuts (15), and ground data plate (18).
7. Install flat washer (14), ground wire (13), flat washer (12), nut (11), two flat washers (10), and wing nut (9).

END OF TASK**REPAIR OR REPLACEMENT****NOTE**

Repair is limited to replacement of deck covering (8). Refer to WP 0067, Figure 1.

Replace procedures are the same as Remove and Installation.

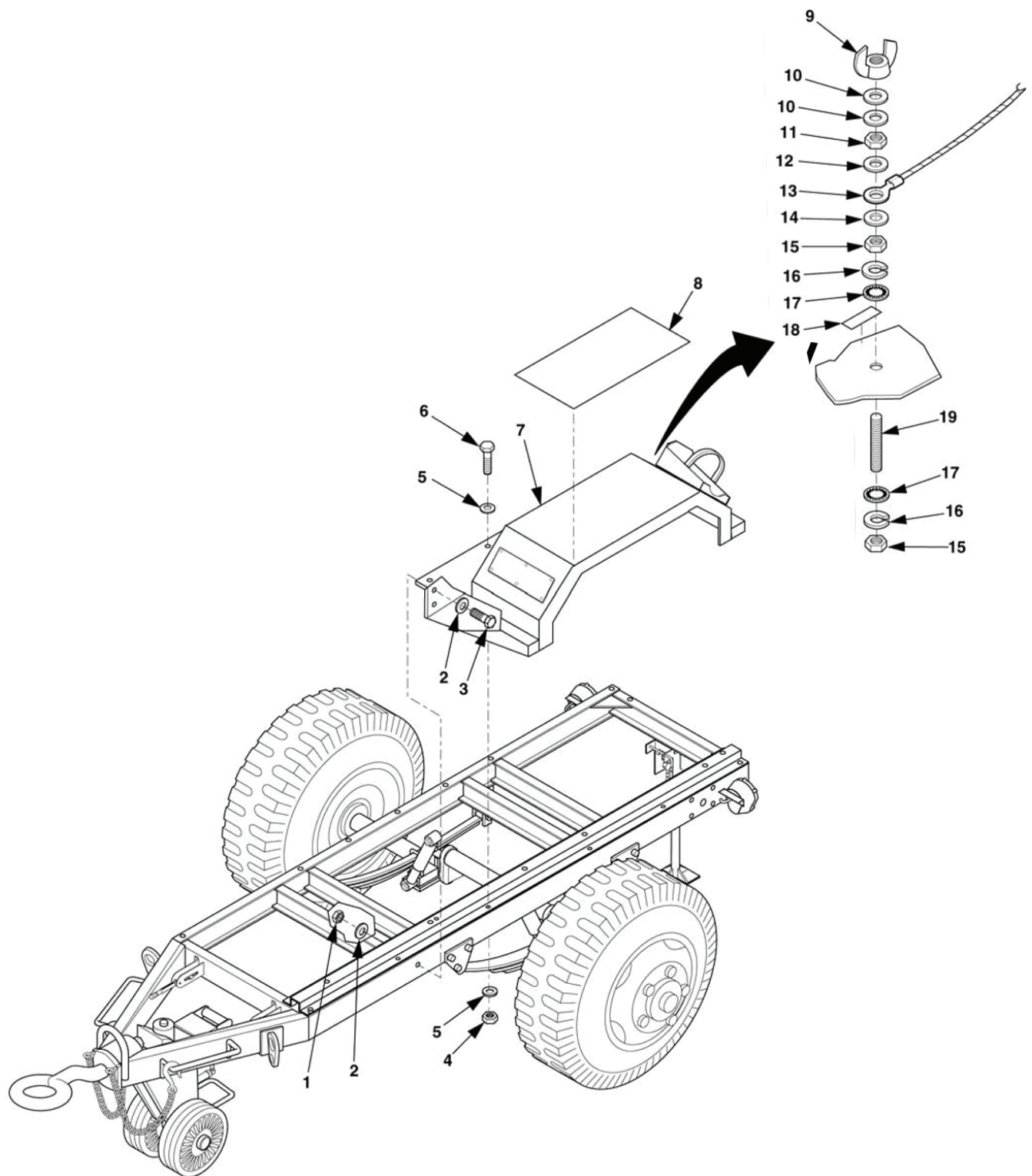


Figure 1. AN/MJQ-36 Fender.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

1 TON TRAILER REAR LEVELING-SUPPORT JACK: INSPECT, SERVICE, REMOVAL, INSTALLATION, REPAIR

INITIAL SETUP:

Tools and Special Tools

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
 Jack Stand (WP 0111, Table 2, Item 5)
 Vise (WP 0111, Table 2, Item 5)

Materials/Parts

Pin, Cotter
 Nut, Self-locking, General Purpose
 Pin, Spring
 Fitting, Lubrication (if Needed)
 Grease, GAA (WP 0114, Item 4)

References

Operator Lubrication (WP 0011)
 Data Plate Reflector (WP 0032)
 Deck Covering (WP 0067)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
 Both generator sets shut down (WP 0005, Stopping Power Plant Set).

TEST AND INSPECTION

Inspect for operability, corrosion, damage, etc.

END OF TASK

SERVICING

Refer to WP 0011, Operator Lubrication.

END OF TASK

REMOVAL

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand(s). Failure to comply with this warning can cause severe personal injury or death.

1. Support rear of trailer with jack stands.
2. Turn leg base (Figure 1, Item 11) to take weight off leg prop.
3. Remove either one of two cotter pins (16 or 6) from pivot shaft (15) and discard.
4. Hold leg base (11) steady and remove pivot shaft (15) with remaining cotter pin (16 or 6) in place.
5. Lift leg base (11) slightly to take weight off retaining pin (10) and remove retaining pin (10). Move leg base (11) and attached parts out of bracket (7).
6. Remove two self-locking nuts (4), four flat washers (5 and 8), and two cap screws (9).
7. Remove two self-locking nuts (4), four flat washers (5 and 8), and two cap screws (9).

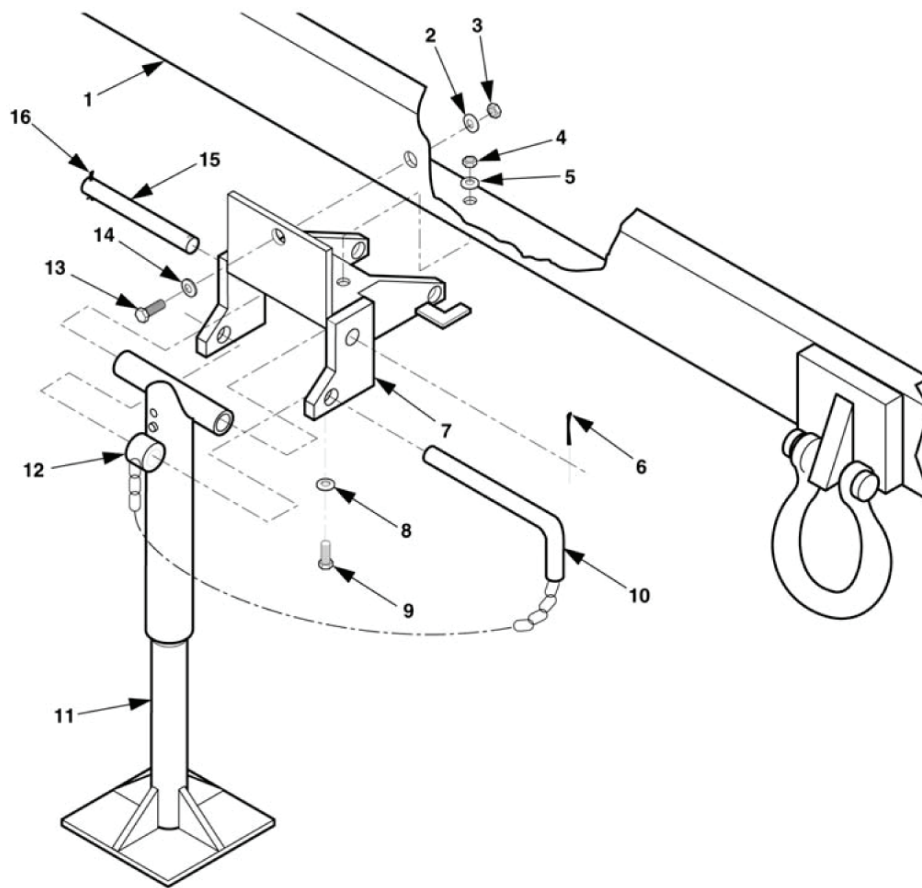


Figure 1. Rear Leveling-Support Jack Replacement, 1 Ton Trailer.

END OF TASK

INSTALLATION

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand(s). Failure to comply with this warning can cause severe personal injury or death.

1. Install bracket (Figure 1, Item 7) on trailer chassis (1), with flat washer (14) and cap screw (13), through mounting hole in bracket (7) on trailer chassis (1).
2. Install flat washer (2) and a new self-locking nut (3) on cap screw (13).
3. Install cap screws (9), flat washers (8 and 5), and new self-locking nuts (4).
4. Position leg base (11) and attached parts in bracket (7) and install retaining pin (10).
5. Position leg base (11) and attached parts in bracket (7) and install retaining pin (10).
6. Install new cotter pin (16 or 6) in pivot shaft (15).
7. Lube rear leveling-support jack.

END OF TASK

REPAIR OR REPLACEMENT**WARNING**

Before removing trailer leveling-support jack, support rear of trailer with jack stand(s). Failure to comply with this warning can cause severe personal injury or death.

NOTE

Disassemble the trailer rear leveling-support jack only to the extent necessary to replace worn, defective, or damaged parts.

Disassemble Trailer Rear Leveling-Support Jack

1. Clamp leg assembly in a vise with spring pin (Figure 1, Item 2) facing up.
2. Drive the spring pin (2) out of upper leg (1) and remove leg base (4).
3. If defective, remove lubrication fitting (3).
4. Inspect upper leg (1) and leg base (4) for damage. If either needs to be replaced, replace entire trailer rear leveling-support jack.

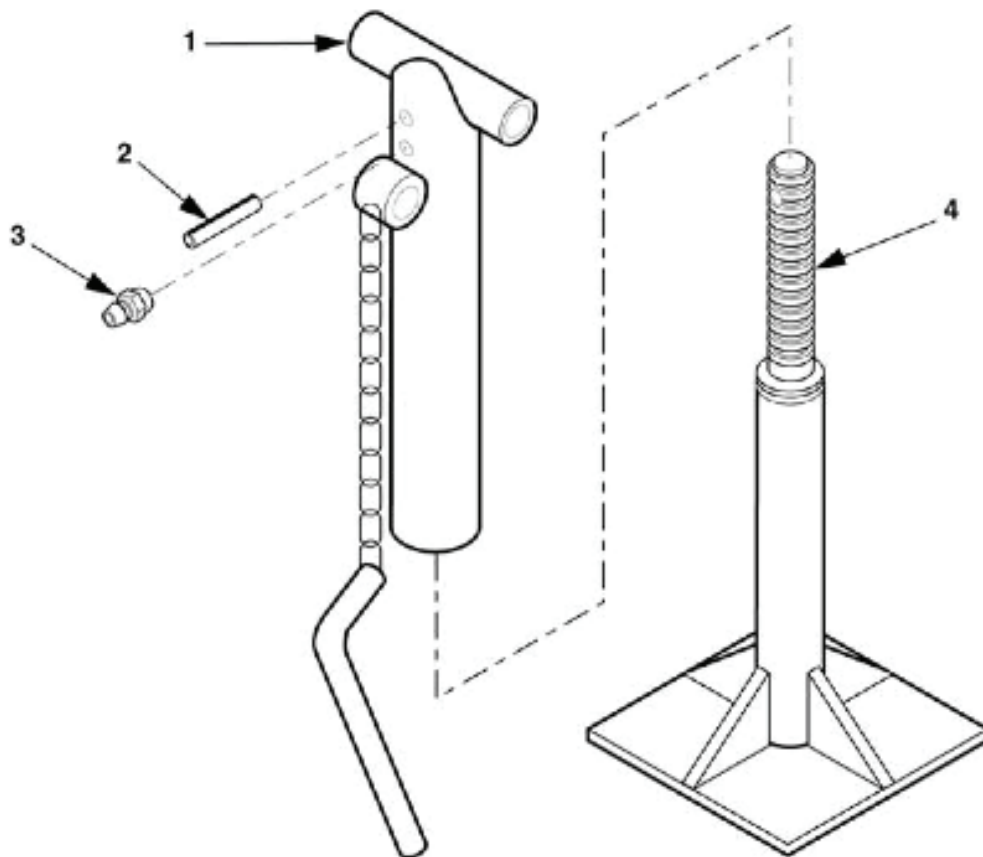


Figure 2. Rear Leveling-Support Jack Repair, 1 Ton Trailer.

END OF TASK**Assemble Trailer Rear Leveling-Support Jack**

1. If removed in disassembly, install lubrication fitting (Figure 2, Item 3).
2. Clamp upper leg (1) in a vise with spring pin hole facing up.
3. Insert leg base (4), align hole and install a new spring pin (2).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****PU-797A AND AN/MJQ-35A GROUND STUD REPLACEMENT: REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

Washer, Lock (WP 0115, Table 1, Item 4)

References

Operation Under Usual Conditions (WP 0005)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit). Both generator sets shut down (WP 0005, Stopping Power Plant Set).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

REMOVAL**NOTE**

WP 0005, Figure 4 contains location of ground stud.

1. Loosen nut (Figure 1, Item 1) and remove ground wire (2) from ground stud (3).
2. Remove nut (4), lock washer (5), flat washer (6), and ground stud (3).

END OF TASK

INSTALLATION

1. Install ground stud (3), flat washer (6), lock washer (5), and nut (4). Tighten nut (4).
2. Install ground wire (2) in slot of ground stud (3) and tighten nut (1).

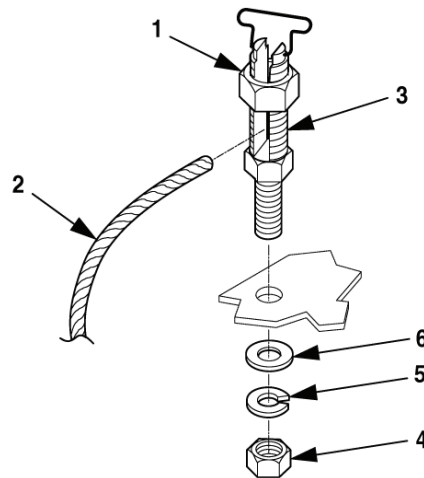


Figure 1. PU-797A and AN/MJQ-35A Ground Stud Replacement.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN**
REMOVAL OF ON, ON-LINE, AND SYNCHRONIZING LAMPS DURING MISSION

INITIAL SETUP:**Personnel Required**

Operator (1)

ReferencesOperation Under Usual Conditions (WP 0005)
Operator Troubleshooting Procedures (WP 0008)**Equipment Condition**Both Sets: Trailer support devices engaged (WP 0005)
Grounded IAW (WP 0005)
Engine control master switch in OFF position (WP 0005)

REMOVAL**WARNING**

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

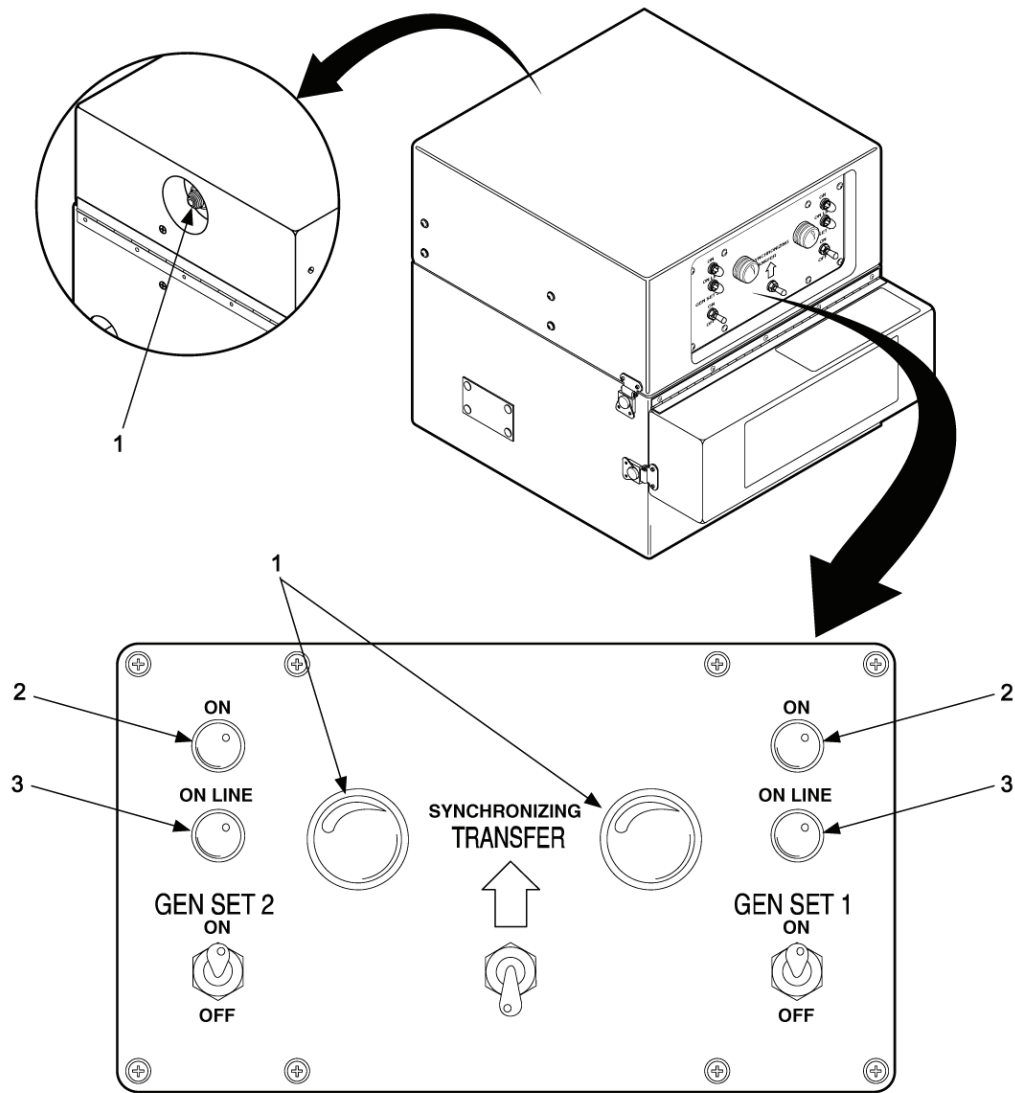
Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

In the event that the right front and rear synchronizing bulbs do not light during the transfer procedure and the mission cannot be terminated to check the bulbs as described in WP 0008, Figure 3, the bulbs will have to be removed as follows with one set running:

NOTE

Failure to maintain the rear bulb operational will cause the switch box to transfer load at any time, throwing both generator sets off line.

1. Shut the on coming generator down, to remove power from the switchbox.
2. Remove the SYNCHRONIZING (Item 1) bulb(s), and replace the burned out bulb(s) with new, if available and proceed with transfer.
3. If no spare bulbs are available, swap the left front bulb with the burned out bulb and proceed with the transfer.



Item No.	Item Name
1	SYNCHRONIZING INDICATOR LAMPS
2	ON INDICATOR LAMPS
3	ON-LINE INDICATOR LAMPS

Figure 1. ON, ON-LINE, and SYCHRONIZING LIGHTS (NEW).

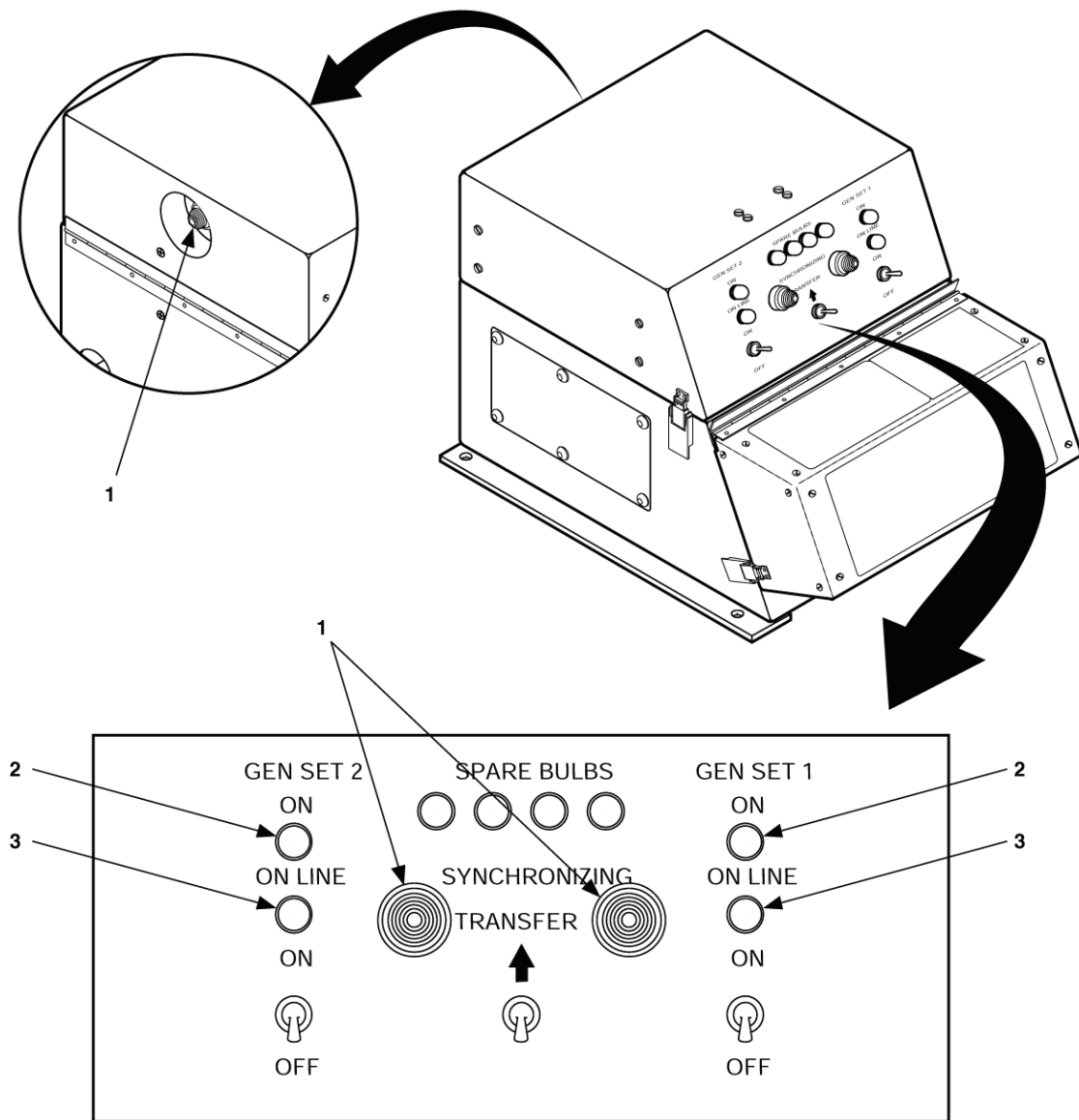


Figure 2. ON, ON-LINE, and SYNCHRONIZING LIGHTS (OLD).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****GENERATOR SET: REMOVAL, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Torque Wrench, 0-150 ft-lb (WP 0111, Table 2, Item 6)
Lifting Device, 1750 lbs. lifting capacity (WP 0111, Table 2, Item 6)

Materials/Parts

Nuts, Self-locking
Washers, Lock (WP 0115, Table 1, Item 5)

Personnel Required

Two

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Power cable leads (AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36) or load cable leads (PU-797 and PU-797A) and ground cable disconnected from generator set load terminals; (WP 0020 and TM 9-6115-641-10).
External fuel source disconnected; (WP 0005, Disconnect External Fuel Source).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1,750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

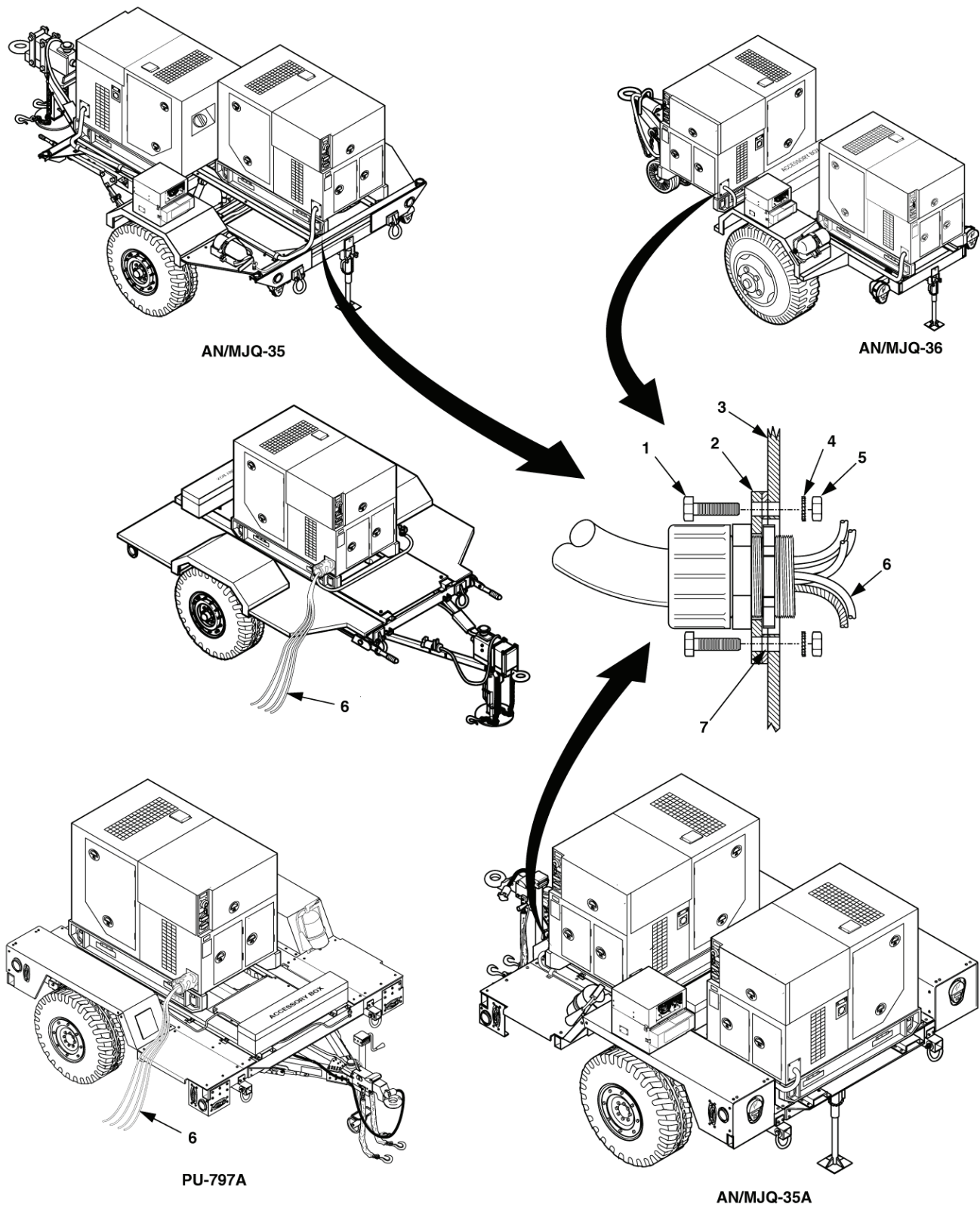


Figure 1. Power/Load Cable Removal.

REMOVAL

1. Remove four nuts (Figure 1, Item 5), lock washers (4) and cap screws (1) from generator output plate (2).
2. For AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36, carefully pull generator output plate (2) away from generator set housing (3). For Power Plants and Power Unit, pull until power cable leads and ground cable (6) are free of generator set housing (3). Remove and retain gasket (7).

NOTE

Steps 3 through 6 must be performed if removing AN/MJQ-35 front generator set.

3. Remove four nuts (Figure 2, Item 3), flat washers (2), and screws (1) from cable clamps (4).
4. Remove three nuts (7), six flat washers (6), and three screws (5) from inboard edge of splash guard (11).

WARNING

Use the aid of an assistant when removing the fender, splash guard, and switch box as an assembly. Failure to comply with this warning can cause severe personal injury.

5. Remove four nuts (10), eight flat washers (9), and four screws (8) from fender (12).
6. Remove fender, splash guard, and switch box from trailer as an assembly.

NOTE

Hardware holding generator sets on trailers differs between configurations. When removing generator sets, refer to Figure 3 to determine hardware used.

7. Remove self-locking nuts (Figure 3, Item 1), flat washers (2), lock washers (4), and cap screws (3).
8. Attach a four-leg sling to the four lifting/tiedown rings at the corners of the generator set skid base. The sling must meet the dimension requirements shown on the generator set lifting and tiedown diagram plate.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1,750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

9. Using a wrecker, crane, or other lifting device having a lifting capacity of at least 1750 lb (793.8 kg) and sufficient lifting height, lift generator set (6) from trailer.

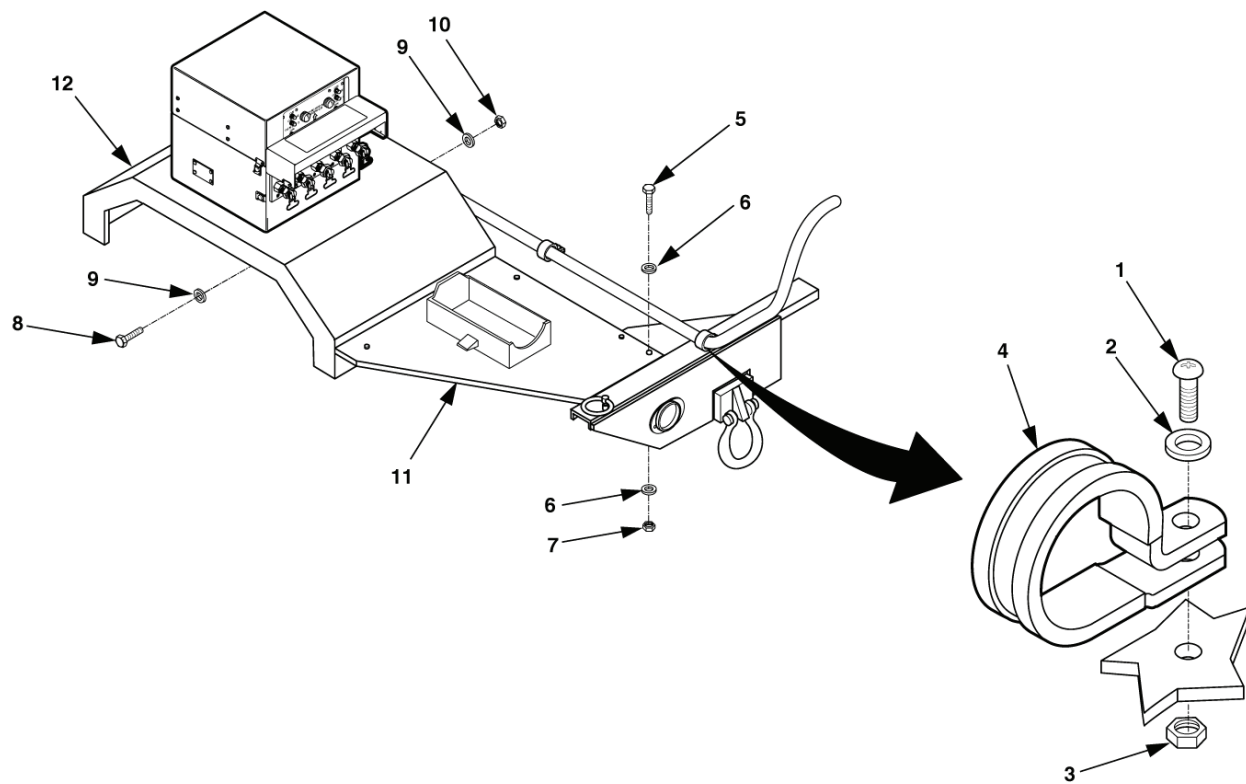


Figure 2. AN/MJQ-35 Roadside Fender Assembly Removal.

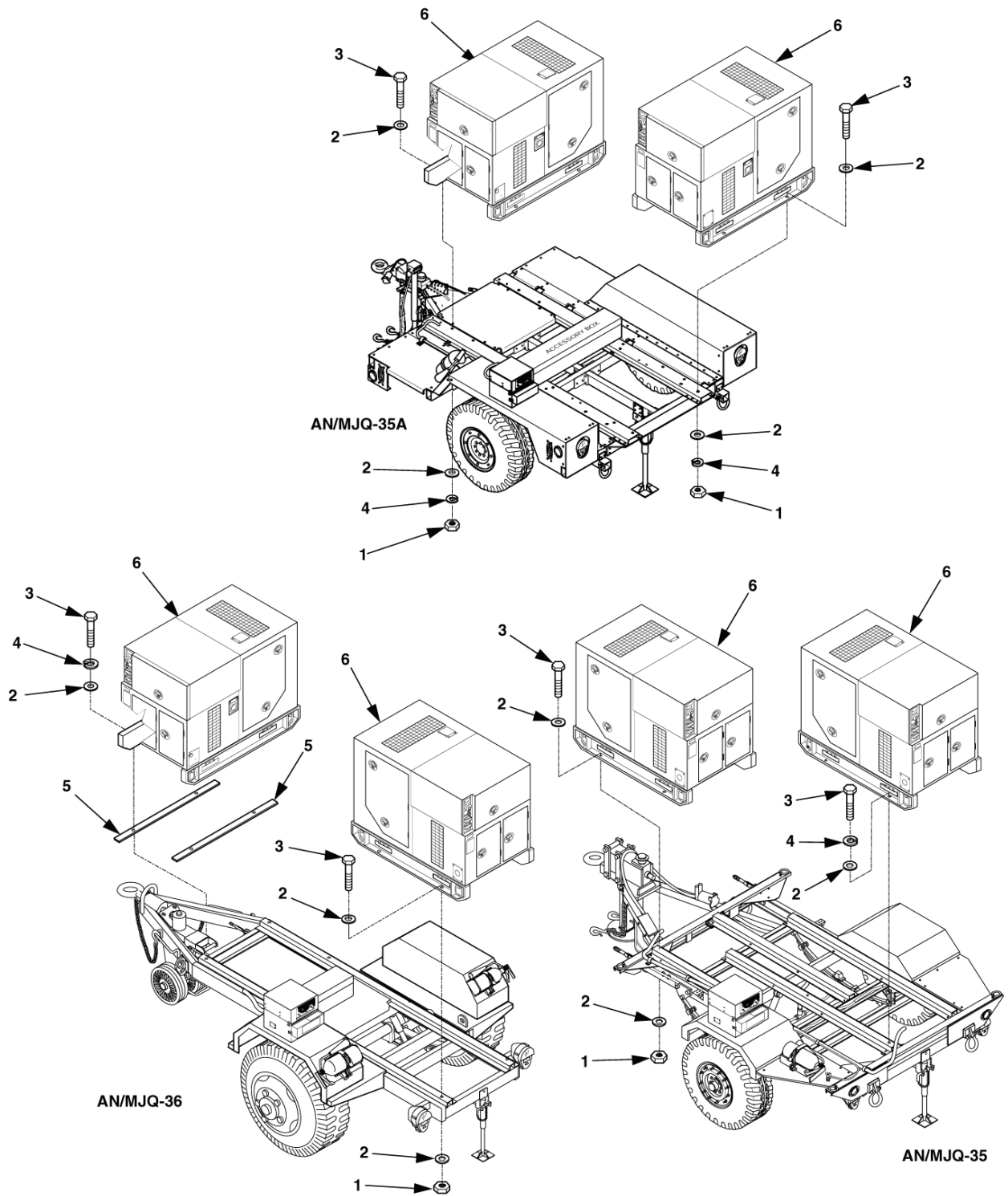


Figure 3. Removing Generator Set Mounting Hardware (Sheet 1 of 2).

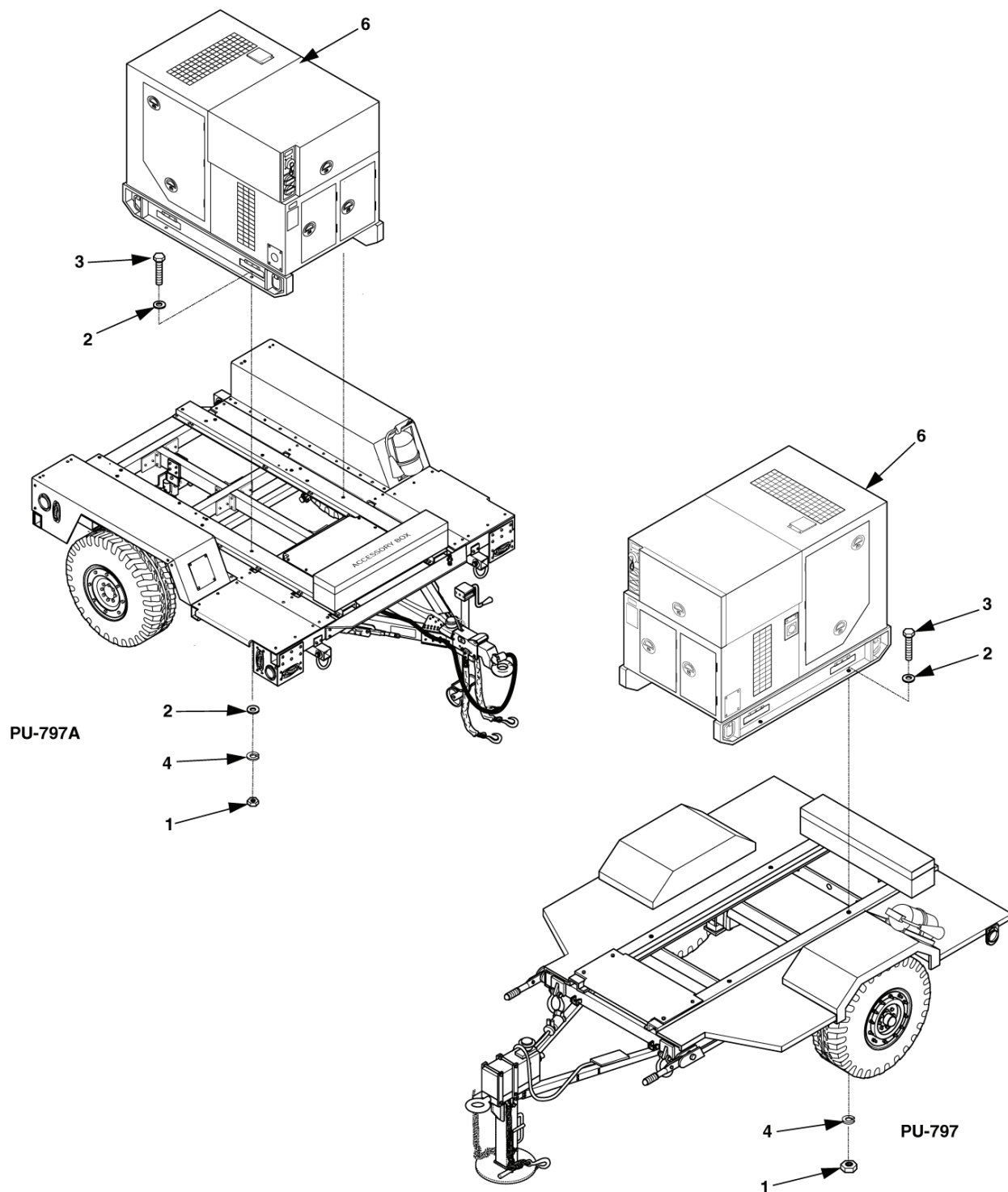


Figure 3. Removing Generator Set Mounting Hardware (Sheet 2 of 2).

END OF TASK

INSTALLATION

1. Using the same sling as in removal step 8, attach sling to generator set lifting/tiedown rings.
2. Using the same lifting device as in removal step 9, lift generator set (6) and position it on trailer.

NOTE

The location of hardware holding generator sets on trailers differs between configurations. When installing generator sets, refer to Figure 3 to determine hardware used. Position lock washers as noted in disassembly.

3. Install self-locking nuts (Figure 3, Item 1), flat washers (2), lock washers (4), and cap screws (3). Torque to 80-88 lb-ft (108.5-119.3 N•m).
4. Position fender, splash guard, and switch box (as an assembly) on trailer chassis.
5. Install four screws (Figure 2, Item 8), eight flat washers (9), and four self-locking nuts (10) in fender (12).
6. Install three screws (5), six flat washers (6), and three self-locking nuts (7) in inboard edge of splash guard (11).
7. Install cable clamps (4), screws (1), flat washers (2), and self-locking nuts (3).
8. Insert power cable electrical leads and ground cable through generator set access opening from which generator output plate was removed in Removal Step 1.
9. Position generator output plate (Figure 1, Item 2, AN/MJQ-35, AN/MJQ-35A and AN/MJQ-36 only) with gasket (7) against generator set housing (3). Secure with four cap screws (1), lock washers (4), and nuts (5).
10. Refer to TM 9-6115-641-10 and connect power cable ends (6) to generator set load terminals as follows:
 - a. Lead marked L1 to L1
 - b. Lead marked L2 to L2
 - c. Lead marked L3 to L3
 - d. Lead marked N to N
 - e. Ground cable to GND terminal

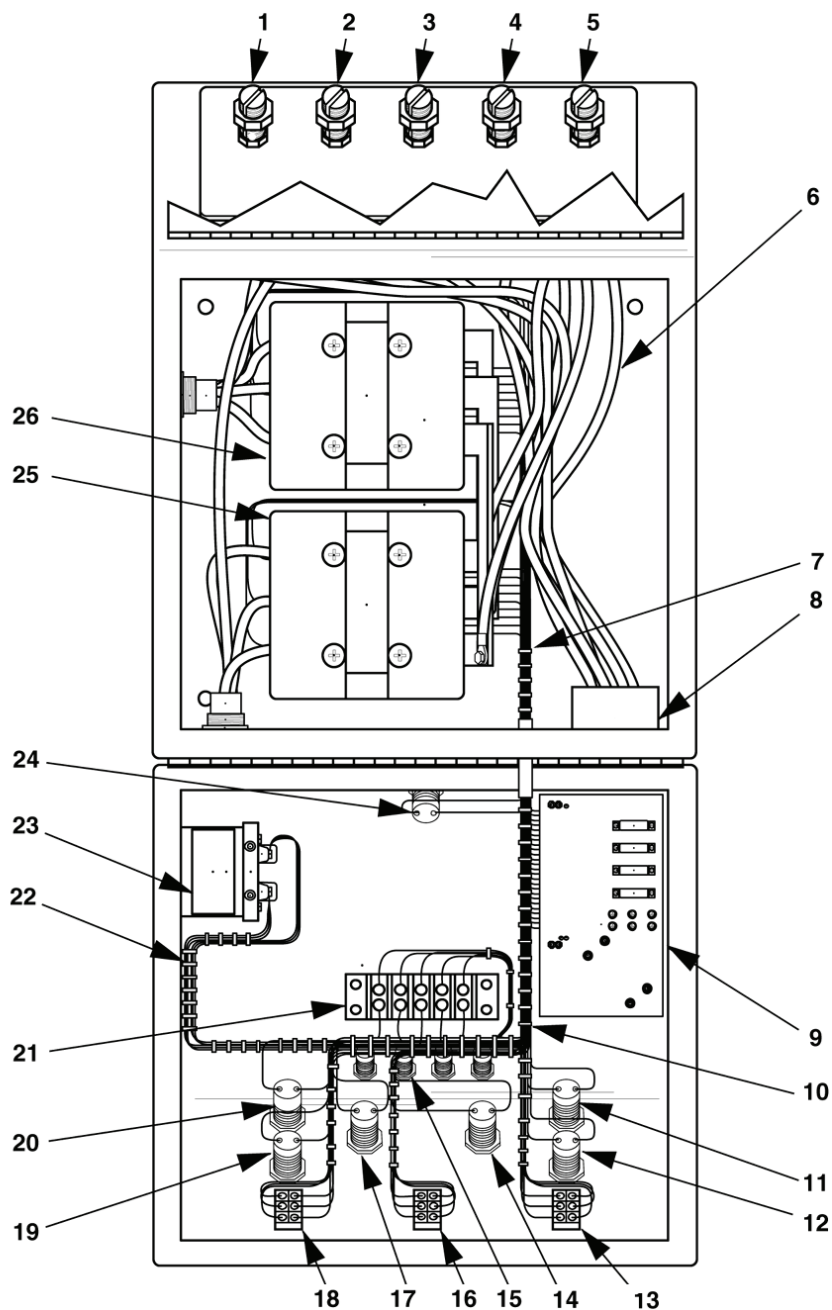
END OF TASK

REPLACEMENT

Replace procedure is the same as removal and installation procedure.

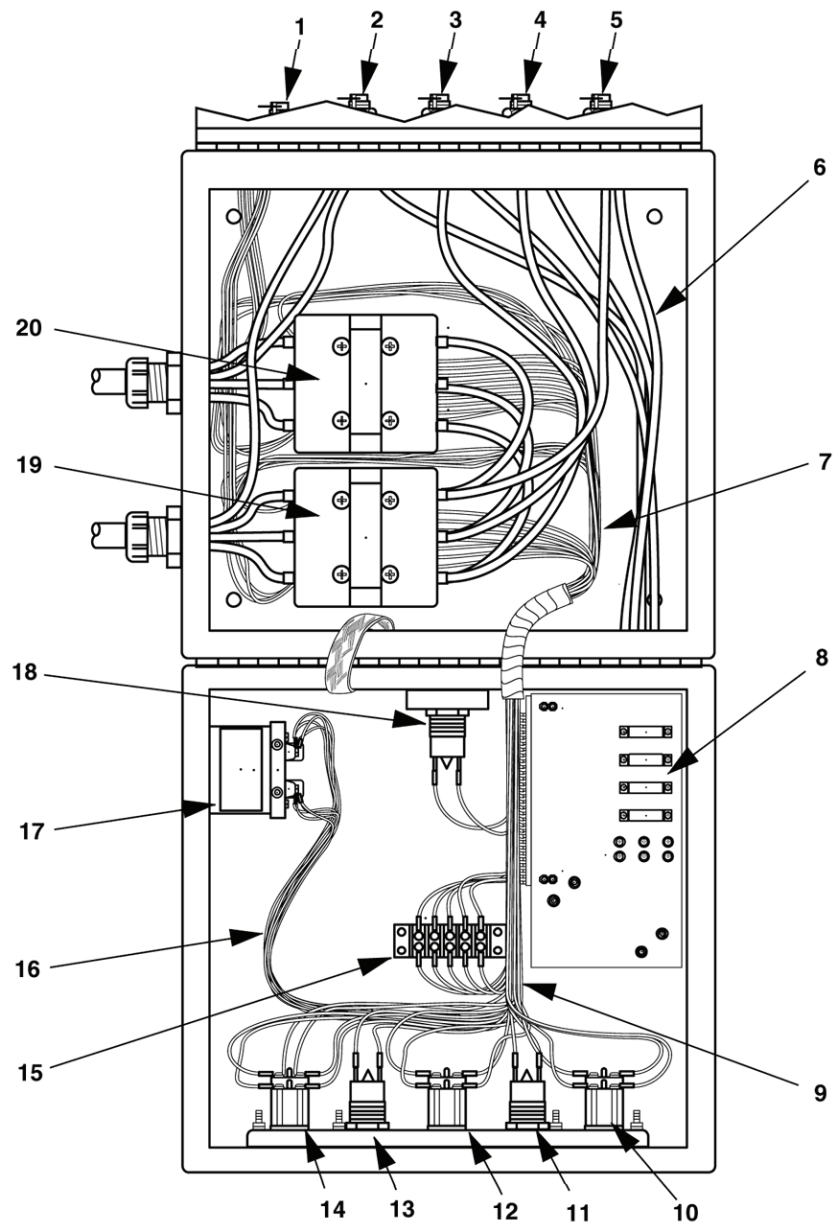
NOTE

Maintenance of switch box assembly consists of testing, removal, and installation of switch box wiring and other switch box components. Figure 4 and Figure 5, Switch Box Components, are provided as an aid in performing the following maintenance procedures.

**LEGEND**

- | | | | |
|----|---------------------------------|----|--------------------------------------|
| 1 | GND TERMINAL | 14 | IND LIGHT HSG XDS6 |
| 2 | TERMINAL N | 15 | HOUSING FOR SPARE LAMP (ONE OF FOUR) |
| 3 | TERMINAL L3 | 16 | SWITCH S10 |
| 4 | TERMINAL L2 | 17 | IND LIGHT HSG XDS5 |
| 5 | TERMINAL L1 | 18 | SWITCH S1 |
| 6 | PART OF OUTPUT CONN HARNESS W10 | 19 | IND LIGHT HSG XDS3 |
| 7 | SW BOX HARNESS W9 | 20 | IND LIGHT HSG XDS1 |
| 8 | OUTPUT CONN | 21 | TERMINAL BOARD TB2 |
| 9 | RELAY BOARD ASSY | 22 | SEE 7 |
| 10 | SEE 7 | 23 | RELAY PP |
| 11 | IND LIGHT HSG XDS2 | 24 | IND LIGHT HSG XDS7 |
| 12 | IND LIGHT HSG XDS4 | 25 | CONTACTOR K1 |
| 13 | SWITCH S2 | 26 | CONTACTOR K2 |

Figure 4. Switch Box Components (OLD).

**LEGEND**

- | | | | |
|----|-------------------------------|----|--------------------|
| 1 | GND TERMINAL | 11 | IND LIGHT HSG XDS6 |
| 2 | TERMINAL N | 12 | SWITCH S10 |
| 3 | TERMINAL L3 | 13 | IND LIGHT HSG XDS5 |
| 4 | TERMINAL L2 | 14 | SWITCH S1 |
| 5 | TERMINAL L1 | 15 | TERMINAL BOARD TB |
| 6 | PART OF OUTPUT CO HARNESS W10 | 16 | SEE 7 |
| 7 | SW BOX HARNESS W | 17 | RELAY PP |
| 8 | RELAY BOARD ASSY | 18 | IND LIGHT HSG XDS7 |
| 9 | SEE 7 | 19 | CONTACTOR K1 |
| 10 | SWITCH S2 | 20 | CONTACTOR K2 |

Figure 5. Switch Box Components (NEW).**END OF TASK****END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****ELECTRICAL LEADS W3-W8: TEST, REMOVAL, REPAIR, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)
Crimping Tool, Hydraulic (WP 0111, Table 2, Item 1)

Materials/Parts

Lock washers

References

Wiring Diagram (FO-1)
Electrical Leads W3-W8 (WP 0061, Figure 1)

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

Refer to FO-1 for wiring diagram.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1,750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

TEST AND INSPECTION

1. Check continuity of lead W3 between contactor terminal K1-A1 and switch box load terminal L1.
2. Check continuity of lead W4 between contactor terminal K1-B1 and switch box load terminal L2.

3. Check continuity of lead W5 between contactor terminal K1-C1 and switch box load terminal L3.
4. Check continuity of lead W6 between contactor terminals K1-A1 and K2-A1.
5. Check continuity of lead W7 between contactor terminals K1-B1 and K2-B1.
6. Check continuity of lead W8 between contactor terminals K1-C1 and K2-C1.
7. Repair or replace any lead that does not have continuity (WP 0061, Figure 1).

END OF TASK**REMOVAL****NOTE**

Figure 1, Detail A, shows connections at K1 or K2. Detail B shows connections at switch box load terminals.

1. Locate W3-W8 connections to terminals A1, B1, and C1 of contactors (Figure 1, Item 13, Detail A) and remove four screws (5), lock washers (6), and contactor shield (7).
2. Remove nuts (8), lock washers (9), flat washers (10), and leads (11 and 12).
3. Locate W3-W5 connections to switch box load terminals L1, L2, and L3 (4, Detail B).
4. Remove nuts (1), internal tooth washers (2), and leads (3) from load terminal (4).

END OF TASK**REPAIR**

Refer to WP 0061, Figure 1.

END OF TASK**INSTALLATION**

1. Install leads W3, W4, and W5 (3), internal tooth washers (2), and nuts (1) on switch box load terminals and tighten.
2. Install other end of leads W3-W6 (11 and 12), flat washers (10), lock washers (9), and nuts (8) on contactors (13).
3. Install contactor shield (7), lock washer (6), and screw (5).

END OF TASK**REPLACEMENT**

Replace procedure is the same as removal and installation procedure.

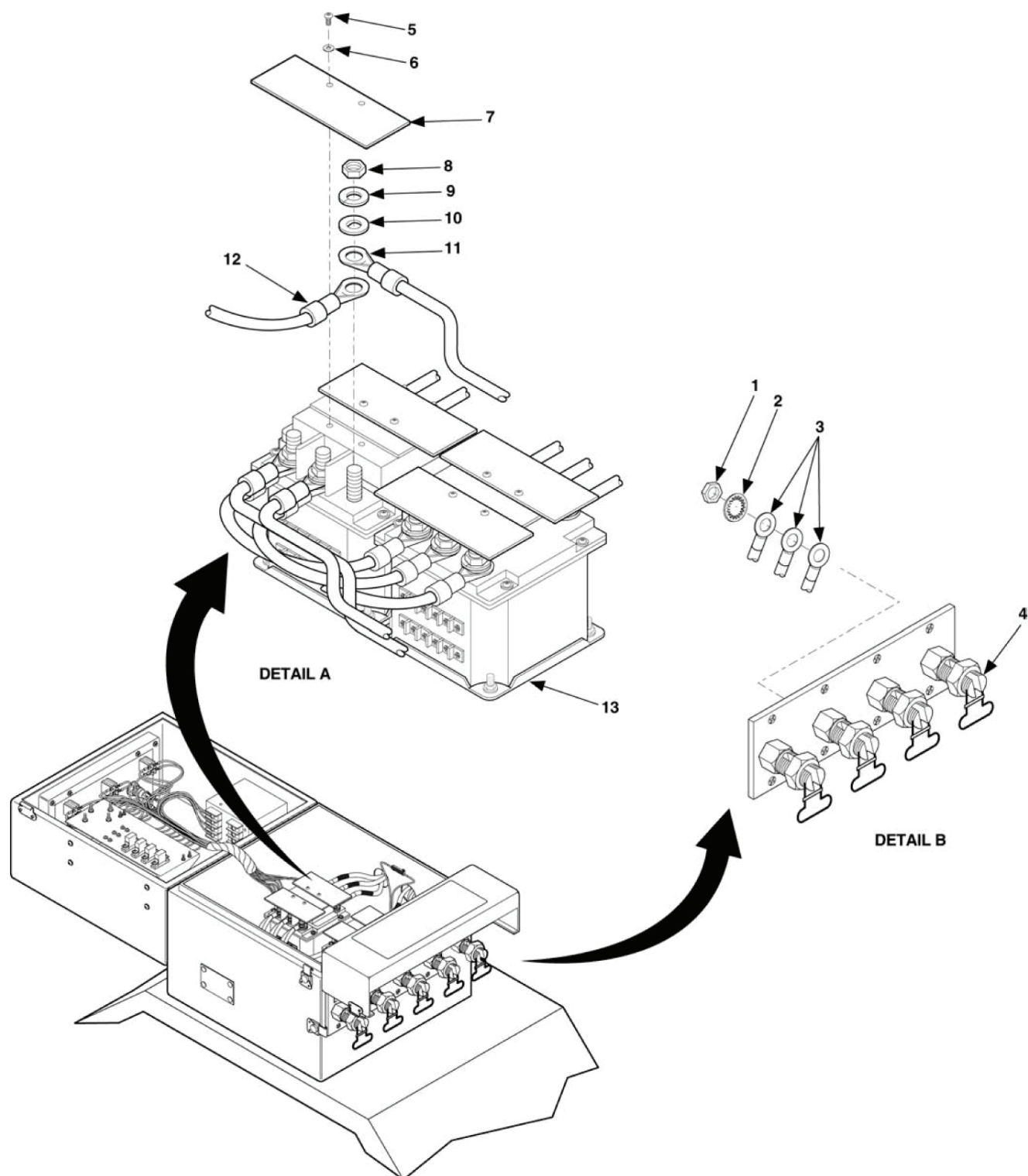


Figure 1. Switch Box Lead Connections.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****SWITCH BOX HARNESS W9: TEST, REMOVAL, REPAIR, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Solder Gun (WP 0111, Table 2, Item 6)
Crimping Tool, Hydraulic (WP 0111, Table 2, Item 1)
Multimeter (WP 0111, Table 2, Item 2)

Materials/Parts

Lock washers
Solder
Insulation sleeving

References

Generator Set (WP 0040, Figure 5 and 5)
Permissive Paralleling Relay (WP 0046, Figure 1)
Switch Box Harness Assembly (WP 0063, Figure 1)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set)
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1,750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

TEST AND INSPECTION

1. Remove four screws (Figure 1, Item 2), lock washers (3), and flat washers (4), and invert relay board assembly (1).

NOTE

Disconnect wire being checked at one end to isolate wire for continuity check.

NOTE

Refer to FO-1 for wiring diagram.

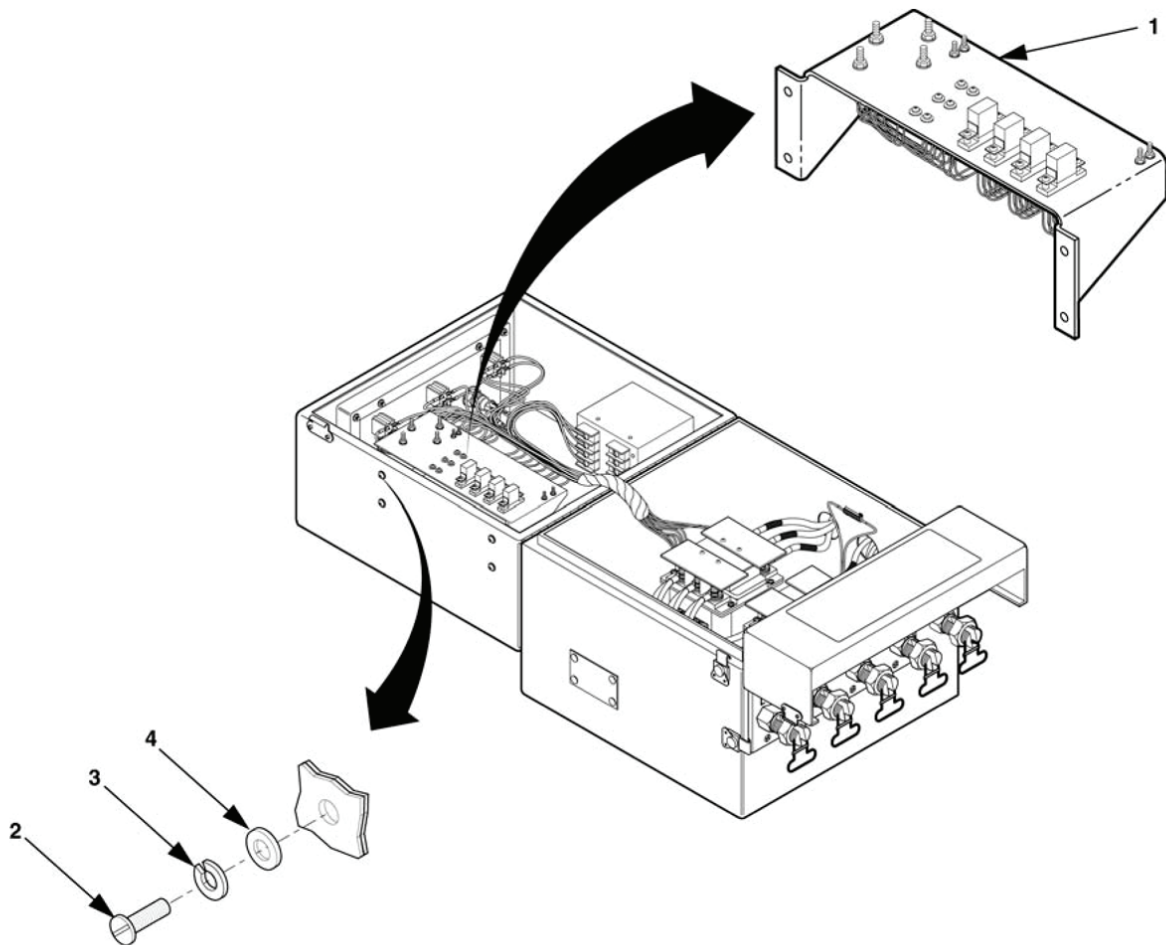


Figure 1. Switch Box Relay Board Assembly.

Table 1. Switch Box Harness Wire List.

WIRE NO.	FROM	TO
W9-1	TB1-17	S10-2
W9-2	TB1-2	PP-4
W9-3	TB1-3	PP-3
W9-4	TB1-4	K2-A2
W9-5	TB1-5	XDS6-2
W9-6	TB1-6	K2-22
W9-7	TB1-7	K1-A2
W9-8	TB1-8	K1-21
W9-9	TB1-9	K1-C2
W9-10	TB1-10	K2-11
W9-11	TB1-10	PP-6
W9-12	TB1-11	PP-8
W9-13	TB1-12	K2-21
W9-14	TB1-13	K1-22
W9-15	TB1-16	S10-5
W9-16	-----	-----
W9-17	TB2-5	K2-C2
W9-18	-----	-----
W9-19	TB2-4	K2-Y
W9-20	XDS6-1	R3-1
W9-21	XDS5-2	PP-2
W9-22	XDS5-1	PP-1
W9-23	TB2-2	K1-C2
W9-24	-----	-----
W9-25	S2-2	S10-4
W9-26	-----	-----
W9-28	S1-6	PP-7
W9-29	S1-2	S10-1
W9-30	S1-5	K1-12
W9-31	S2-6	PP-5
W9-32	-----	
W9-33	S2-5	K2-12
W9-34	K1-11	PP-8
W9-35	PP-4	N
W9-36	XDS7-2	PP-1
W9-37	XDS7-1	L3
W9-38	K1-22	K2-32
W9-39	K2-32	K1-C2

Table 1. Switch Box Harness Wire List. - Continued

WIRE NO.	FROM	TO
W9-40	K2-22	K2-C2
W9-41	K1-32	K2-C2
W9-42	K1-33	K2-11
W9-43	K2-Y	N
W9-44	K2-X	S2-3
W9-45	K2-33	K1-11
W9-46	K1-X	S1-3
W9-47	K1-Y	N
W9-48	K1-Y	TB2-1
W9-49	K2-A1	R3-2
W9-50	PP-2	PP-3
W9-51	TB1-18	TB2-3
W9-52	TB2-3	Ground

- Measure continuity of switch box harness W9 as listed in Table 1. Refer to WP 0040, Figure 4 and wiring diagram (FO-1).
- If any wire fails continuity check, repair or replace switch box harness.
- If all wires pass continuity check, install relay board assembly (WP 0046, Figure 1), four flat washers (4), screws (2), lock washers (3), and screws (2).

END OF TASK**REMOVAL****NOTE**

Other leads removed during removal of W9 harness leads must be replaced with any attaching hardware.

- Remove two screws (Figure 2, Item 1), lock washers (2), and contactor shields (3) that cover contactor terminals A2, B2, and C2 of contactor K1 and K2, and terminal A1 of contactor K2.
- Refer to Table 1 and wiring diagram (Figure FO-1), tag leads, and remove nut (4), lock washer (5), and flat washer (6) from contactor terminals (9) and remove W9 leads.
- Tag and remove leads (12) from terminals (13) by removing screws (11).

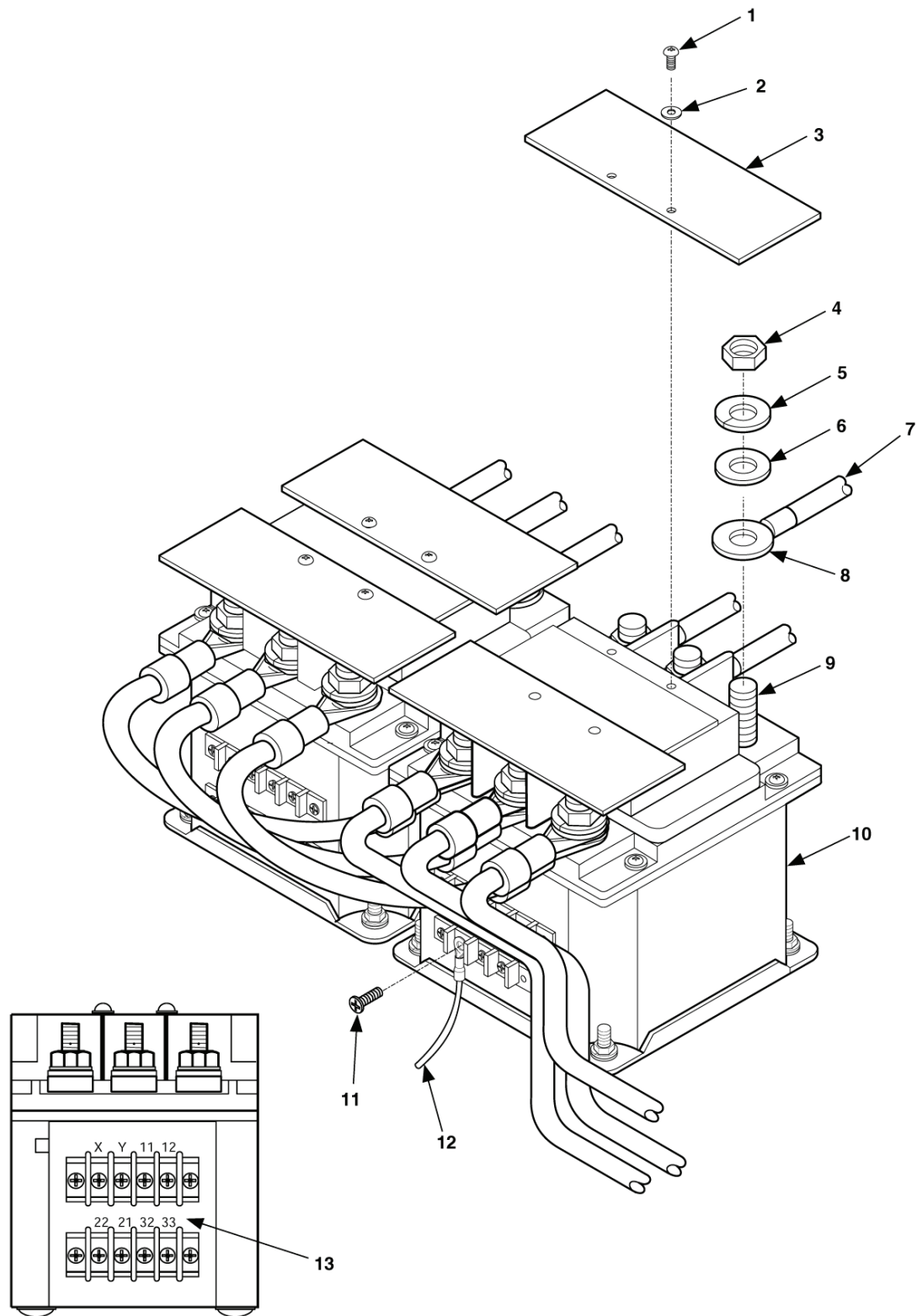


Figure 2. Disconnect Switch Box Harness W9 from Contactor.

4. Remove insulation from W9-20 and W9-49 connections to resistor R3 and unsolder harness leads.

5. Remove nut (Figure 3, Item 1), internal tooth washer (2), and W9 harness lead (3) from load terminals N and L3 (4).

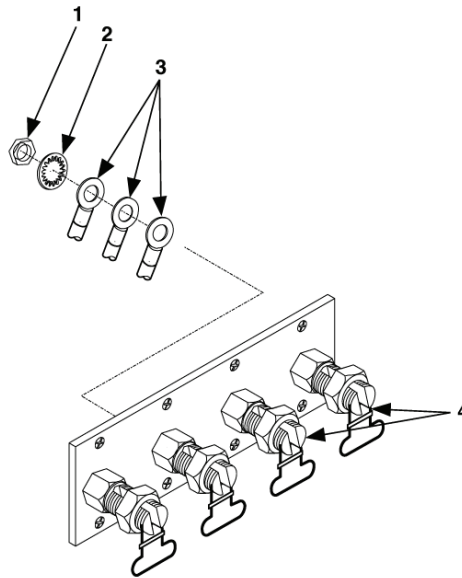


Figure 3. Switch Box Load Terminals.

6. Remove four screws (Figure 4, Item 1), lock washers (2), and flat washers (3), and invert relay board assembly (4).

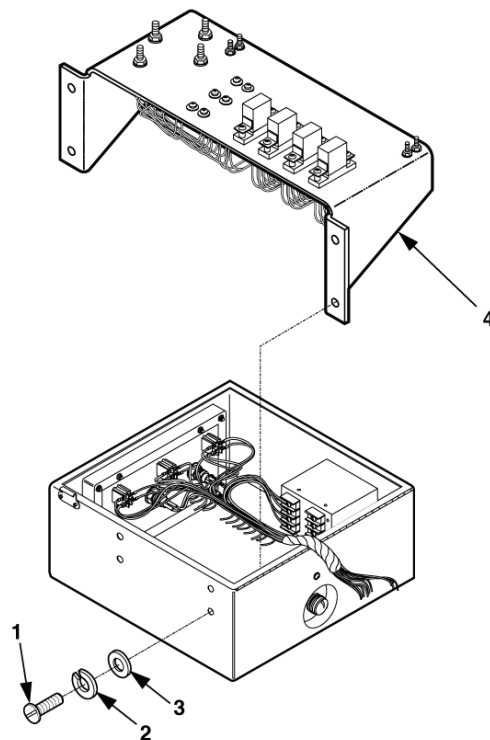


Figure 4. Relay Board Assembly Removal.

7. Refer to Table 1 and tag and disconnect all W9 wires from terminal board TB1 and TB2.

8. Refer to Table 1 and wiring diagram (Figure FO-1), and tag and disconnect all W9 wires from switches S1, S2, and S10; indicator light housings XDS1 through XDS7; and permissive paralleling relay PP.
9. Remove switch box wiring harness W9 from switch box.

END OF TASK**REPAIR**

Refer to WP 0063, Figure 1.

END OF TASK**INSTALLATION**

1. Position harness in switch box.
2. Using WP 0040, Figures 4 and 5, and Figure FO-1 as a reference, connect wires to switches S1, S2, and S10; indicator light housings XDS1-XDS7; and permissive paralleling relay PP.
3. Refer to Table 1 and connect all W9 leads to terminal boards TB-1 and TB-2.
4. Position relay board (Figure 4, Item 4) and install four flat washers (3), lock washers (2), and screws (1).
5. Install W9 harness leads (Figure 3, Item 3), internal tooth washer (2), and nut (1) on load terminals N and L3 (4).
6. Place insulation sleeving on leads W9-20 and W9-49 and solder leads to resistor R3.
7. Slide sleeving over solder joint and heat shrink.
8. Refer to Table 1 and install W9 wires (Figure 2, Item 7), flat washers (6), lock washers (5), and nuts (4) on contactor terminals (9).
9. Refer to Table 1 and install W9 leads (12) on terminals (13) using screws (11).
10. Install contactor shield (3), two lock washers (2), and screws (1) over contactor terminals A2, B2, and C2.

END OF TASK**REPLACEMENT**

Replace procedure is the same as removal and installation procedure.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****RELAY BOARD HARNESS W11: TEST, REMOVAL, REPAIR, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Solder Gun (WP 0111, Table 2, Item 6)
Crimping Tool, Hand (WP 0111, Table 2, Item 6)
Multimeter (WP 0111, Table 2, Item 2)

Materials/Parts

Solder
Lock washers

References

Relay Board Harness Assembly (WP 0062, Figure 1)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

TEST

1. Remove four screws (Figure 1, Item 1), lock washers (2), and flat washers (3), and invert relay board assembly (4).
2. Refer to wiring diagram (Figure FO-1) and Table 1, and perform continuity check of relay board harness W11.

Table 1. Relay Board Harness Wire List.

WIRE NO.	FROM	TO
W11-1	XK3-2	TB1-1
W11-2	XK3-3	TB1-6
W11-3	XK3-4	TB1-5
W11-4	XK3-5	TB1-3
W11-5	XK3-6	TB1-4
W11-6	XK3-7	TB1-2
W11-7	XK5-2	TB1-1
W11-8	XK5-3	TB1-8
W11-9	XK5-4	TB1-10
W11-10	XK5-5	TB1-17
W11-11	XK5-6	TB1-6
W11-12	E-7	E-6
W11-13	XK4-2	TB1-14
W11-14	XK4-3	TB1-9
W11-15	XK4-4	TB1-5
W11-16	XK4-5	TB1-3
W11-17	XK4-6	TB1-7
W11-18	XK4-7	TB1-15
W11-19	R1-1	TB1-17
W11-20	XK6-3	TB1-12
W11-21	XK6-4	TB1-11
W11-22	XK6-5	TB1-16
W11-23	XK6-6	TB1-13
W11-24	XK6-7	TB1-15
W11-25	R1-2	E6
W11-26	R2-2	E3
W11-27	E5	TB1-1
W11-28	E4	TB1-2
W11-29	R2-1	TB1-16
W11-30	E2	TB1-15
W11-31	E1	E4
W11-32	XK5-7	TB1-2
W11-33	E1	TB1-14

Table 1. Relay Board Harness Wire List. - Continued

WIRE NO.	FROM	TO
W11-34	E8	TB1-18
W11-35	XK6-2	TB1-14
W11-36	E9	E3

NOTE

Wire being checked must be disconnected at one location to isolate wire for continuity check.

3. If any wire fails continuity check, repair or replace relay board harness.
4. If all wires pass continuity check, install relay board assembly (4), four flat washers (3), lock washers (2) and screws (1).

END OF TASK**REMOVAL**

1. Remove four screws (1), lock washers (2), flat washers (3), and invert relay board assembly (4).

NOTE

Other leads removed during removal of W11 harness leads must be replaced with any attaching hardware.

2. Refer to relay board harness wire list (Table 1), and tag and disconnect all W11 leads from terminal board (5) and relay sockets (6).

3. Remove relay board harness W11.

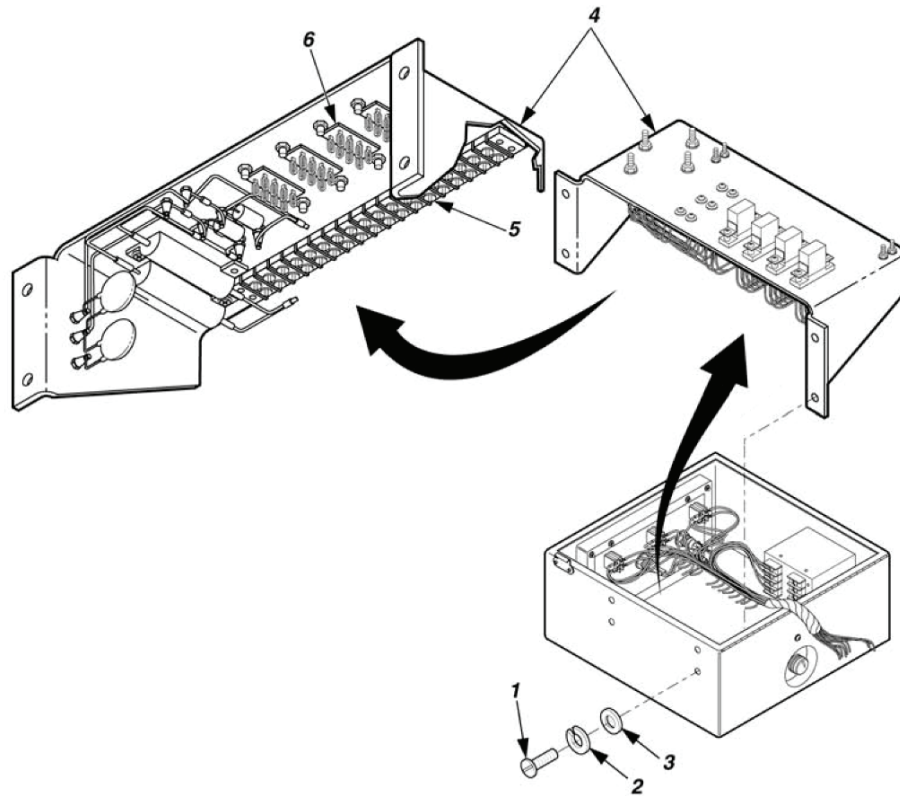


Figure 1. Relay Board Harness Assembly W11 Removal.

END OF TASK

REPAIR

Refer to WP 0062, Figure 1.

END OF TASK

INSTALLATION

1. Position wiring harness W11 on relay board so that wire ends having terminal lugs are near TB1 terminals (5).
2. Refer to Table 1 and connect all W11 leads.
3. Position relay board assembly (4), and install four flat washers (3), lock washers (2), and screws (1).

END OF TASK

REPLACEMENT

Replace procedure is the same as removal and installation procedure.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****OUTPUT CONNECTOR HARNESS W10 (OPTIONAL): TEST, REMOVAL, REPAIR, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Solder Gun (WP 0111, Table 2, Item 6)
Crimping Tool, Hydraulic (WP 0111, Table 2, Item 1)
Multimeter (WP 0111, Table 2, Item 2)

Materials/Parts

Solder
Lock washers

References

Output Connector Harness Assembly (WP 0065, Figure 1)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

NOTE

This connector is optional on the switchbox; check your switchbox to see if this procedure applies. See Chapter 2 for operation.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

Refer to FO-1 for wiring diagram.

TEST AND INSPECTION

1. Check continuity of output connector harness as listed in Table 1.

Table 1. Output Connector Harness Continuity Check.

FROM	TO	CONTINUITY	NO CONTINUITY
N	L1	X	X
N	L2		X
N	L3		X
N	GND		
L1	L2		X
L1	L3		X
L1	GND		X
L2	L3		X
L2	GND		X
L3	GND		X
J1-A	L1	X	
J1-B	L2	X	
J1-C	L3	X	
J1-N	N	X	
J1-G	GND	X	

2. If any wire fails continuity check, repair or replace output connector harness.

END OF TASK**REMOVAL**

1. Remove nuts (Figure 1, Item 8) and internal tooth washers (9) from switch box load terminals (11).

NOTE

Other leads removed during removal of W11 harness leads must be replaced with any attaching hardware.

2. Tag and remove output connector leads (10) from switch box load terminals (11).
3. Remove four nuts (7) lock washers (6), eight flat washers (2), chain (3) attached to dust cover, four screws (1), and output connector (4).

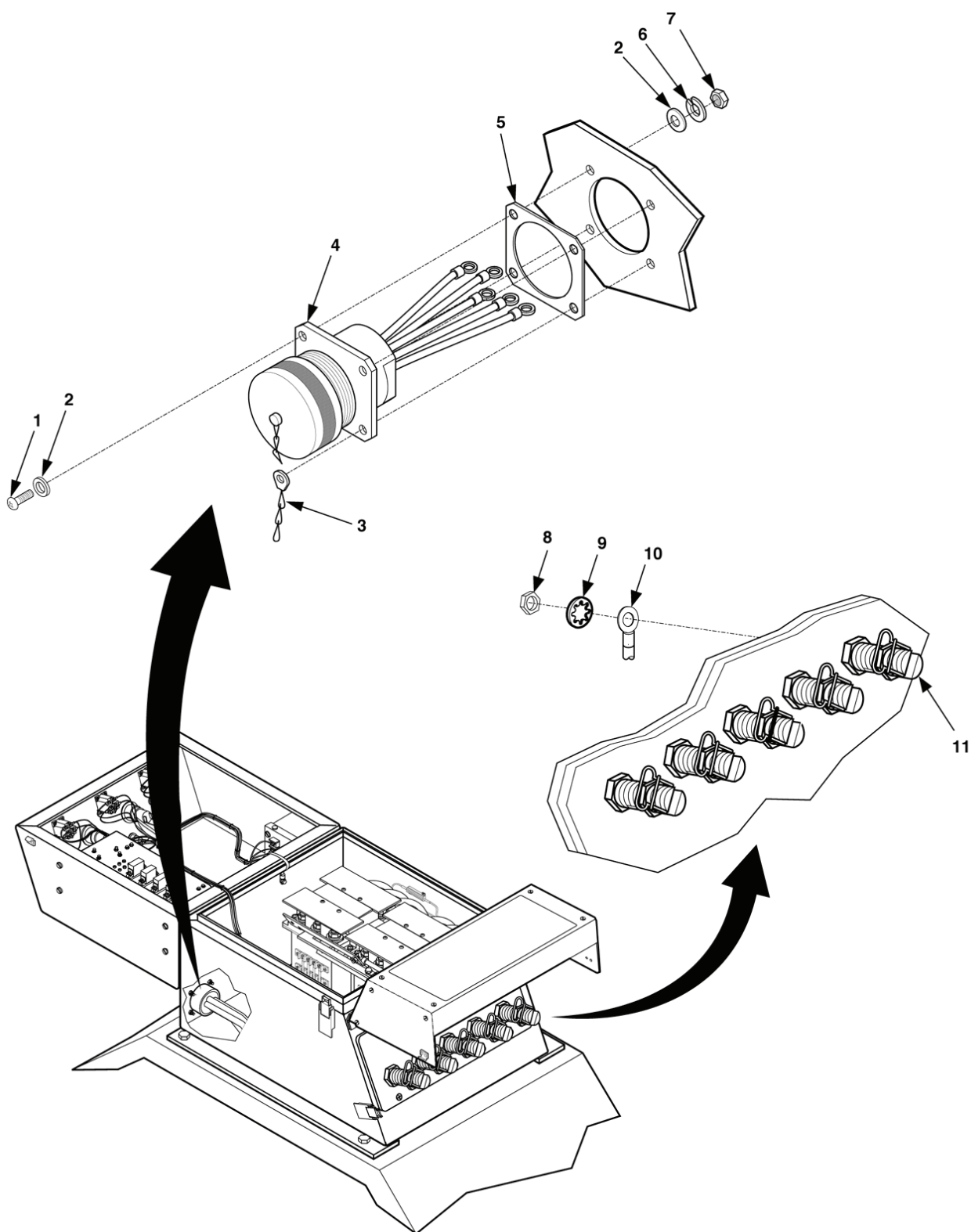


Figure 1. Output Connector Harness.

END OF TASK

REPAIR

Refer to WP 0065, Figure 1.

END OF TASK**INSTALLATION**

1. Install output connector (4), chain (3) attached to dust cover, four screws (1), eight flat washers (2), four lock washers (6), and nuts (7).
2. Refer to wiring diagram (Figure FO-1) and tags placed on leads during removal, and install leads (10), internal tooth washers (9), and nuts (8) on load terminals (11).

END OF TASK**REPLACEMENT**

Replace procedure is the same as removal and installation procedure.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****RELAYS K3-K6: REMOVAL, TEST, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)
24 VDC Power Source (WP 0111, Table 2, Item 6)

Materials/Parts

Lock washers

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

Remove two screws (Figure 1, Item 1), washers (2), and relays (3) from relay sockets (4).

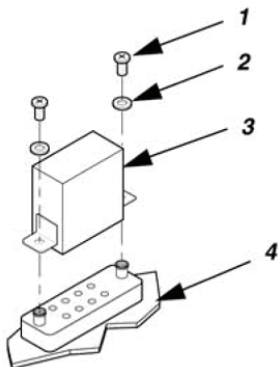
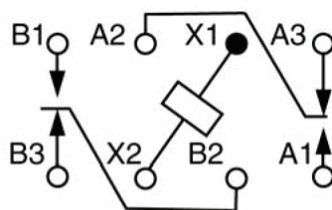


Figure 1. Relay K3-K6 Removal.

END OF TASK**TEST AND INSPECTION**

1. Repeat removal step above.
2. Refer to Figure 2 and check continuity of relay coil between pins X1 and X2.



COIL DEENERGIZED

Figure 2. Relay K3-K6 Schematic.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone. Failure to comply with this warning can cause injury or death to personnel.

3. Attach 24 VDC power source across pins X1 and X2 of relay and check continuity of relay contacts before and after relay is energized as listed in Table 1.

Table 1. Relay Operation.

RELAY STATUS	CONTINUITY BETWEEN PINS	NO CONTINUITY BETWEEN PINS
Power NOT Applied	A2 and A3 B2 and B3	A1 and A2 B1 and B2
Power Applied	A1 and A2 B1 and B2	A2 and A3 B2 and B3

4. If all multimeter indications are correct, perform installation procedures.
5. If any multimeter indication is not as listed in Table 1 perform installation with new relay.

END OF TASK**INSTALLATION**

Install relay (Figure 1, Item 3) in relay socket (4) and secure with two washers (2) and screws (1).

END OF TASK**REPLACEMENT**

Replace procedure is the same as removal and installation procedure.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****PERMISSIVE PARALLELING RELAY: REMOVAL, TEST, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)
Power Oscillator, 50-420 Hz (WP 0111, Table 2, Item 6)

Materials/Parts

Lock washers

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in WP 0047.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

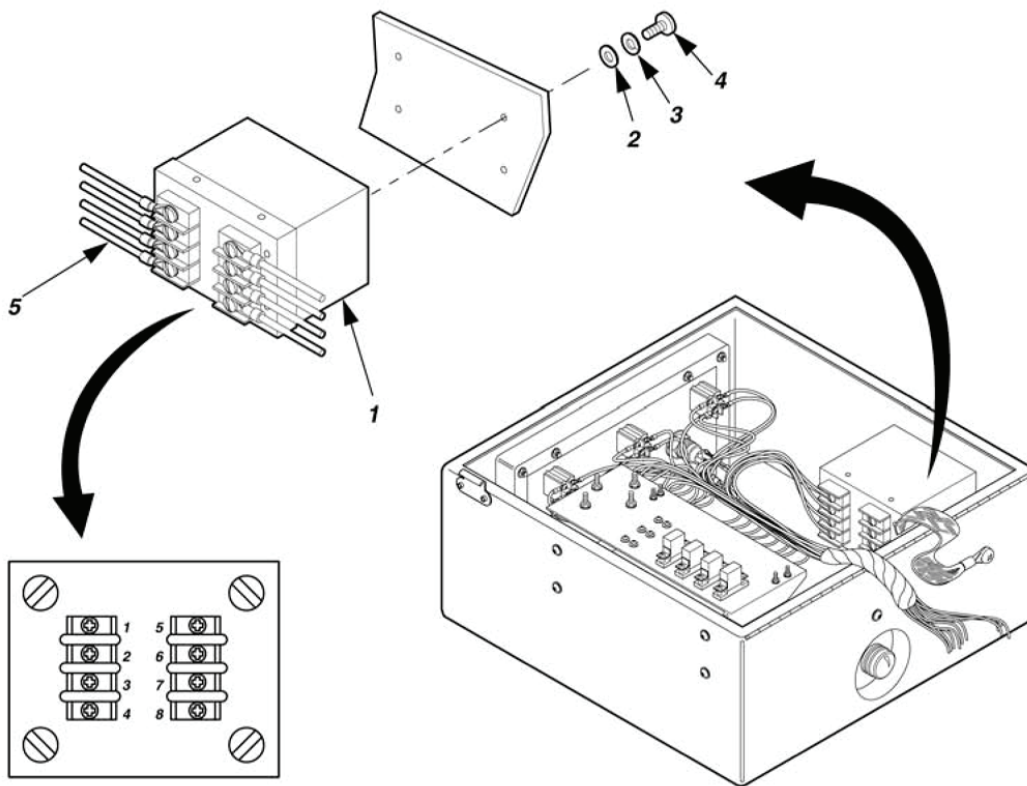


Figure 1. Permissive Paralleling Relay.

REMOVAL

Tag and disconnect leads (Figure 1, Item 5). Remove four screws (4), lock washers (3), flat washers (2), and permissive paralleling relay (1).

END OF TASK

TEST AND INSPECTION

1. Perform removal procedure above and position permissive paralleling relay (1) on work surface. Connect a variable AC voltage, 50-420 Hz, power oscillator across terminals 1 and 2.
2. Connect multimeter across terminals 5 and 6 and check for continuity. If continuity exists, leave multimeter connected for remainder of test. If no continuity exists, replace relay.
3. Connect a variable AC voltage, 50-420 Hz power oscillator, across terminals 1 and 2.
4. Apply 120 volts AC across terminals 3 and 4.
5. Adjust the oscillator output for 60 Hz.
6. Increase the oscillator output to a value of 20 volts. Multimeter should indicate no continuity. Slowly decrease the oscillator output until continuity is observed. Oscillator output voltage should be 8"1 VAC.
7. Increase the oscillator output until multimeter shows no continuity. Oscillator voltage should be no more than 1-volt above previous voltage reading.
8. Perform steps 6 and 7 with multimeter connected across terminals 7 and 8.
9. Perform installation procedure using new relay if it fails to meet the requirements of steps 6 through 8.

10. If relay meets the requirements of steps 6 through 8, perform installation procedures.

END OF TASK

INSTALLATION

Position permissive paralleling relay (1) in switch box and install flat washer (2), lock washer (3), and screw (4). Connect leads (5).

END OF TASK

REPLACEMENT

Replace procedure is the same as removal and installation procedure.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
CONTACTORS K1 AND K2: REMOVAL, TEST, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)

Materials/Parts

Lock washers

References

Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

REMOVAL

1. Remove four screws (Figure 1, Item 1), lock washers (2) and terminal shields (3) from contactor (9).
2. Remove nuts (4), lock washers (5), and flat washers (6) from all contactor terminals (8).

NOTE

Leads W3, W4, and W5 (13, 14, and 15) must be removed along with leads W6, W7, and W8 when contactor K1 is being removed.

3. Tag and remove power cable leads (7) from contactor terminals A2, B2, and C2 (8), and ends of leads W6, W7, and W8 (10, 11, and 12) from contactor terminals A1, B1, and C1.

4. Tag and disconnect terminal lugs of W9 wires from contactor (8) terminals (16) X, Y, 11, 12, 21, 22, 32, and 33.
5. Remove four nuts (17), lock washers (18), flat washers (19), and contactor (9).

END OF TASK**TEST AND INSPECTION**

1. Check for continuity between contactor terminals X and Y. If no continuity, replace contactor.

WARNING

Dangerous voltage exists on live circuits. Always observe precautions and never work alone.
Failure to comply with this warning can cause injury or death to personnel.

2. Attach 115 VAC power source across pins x and y of contactor and check continuity of relay contacts before and after contactor is energized as listed in Table 1.

NOTE

Contactor shown is K2.

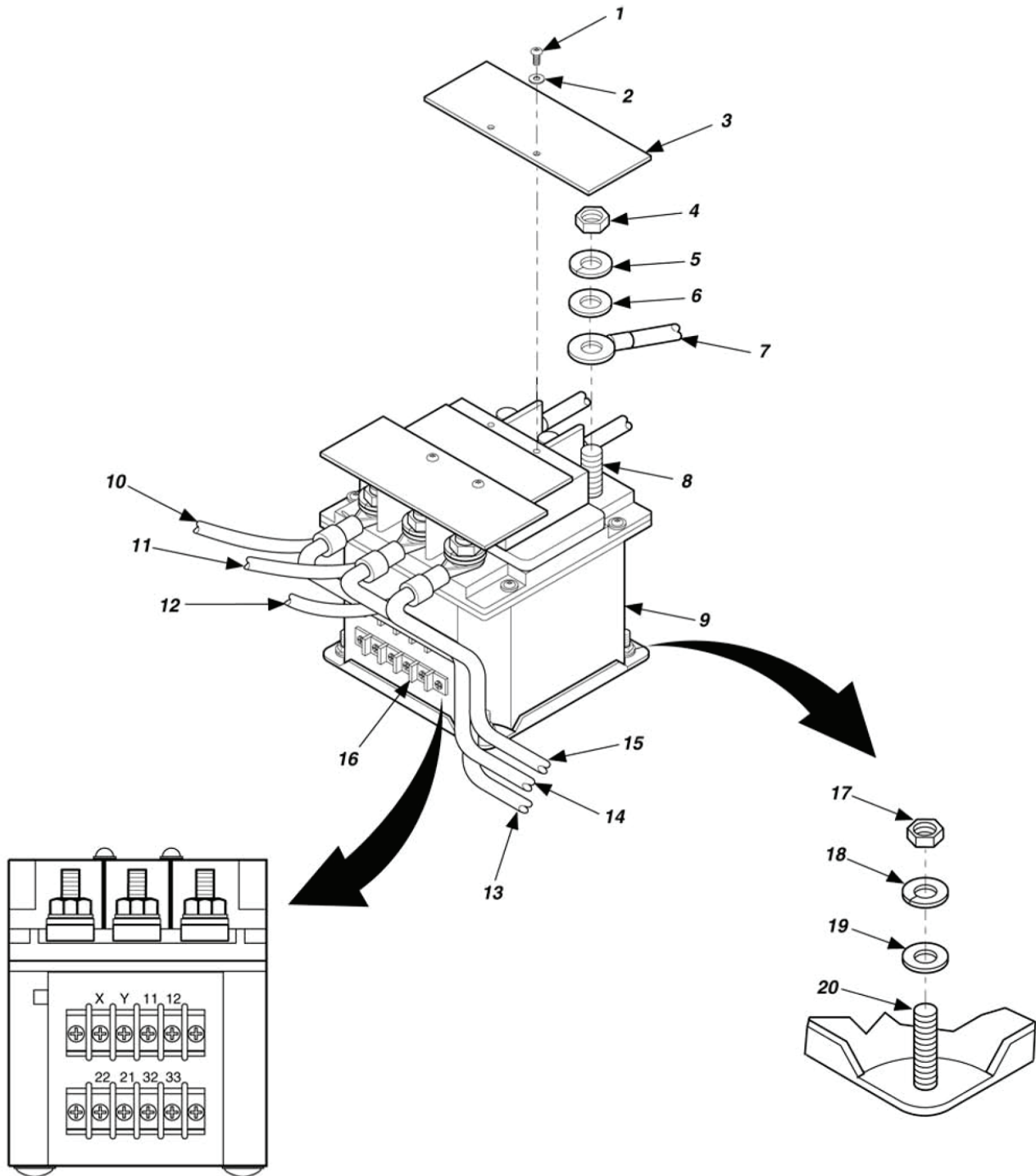


Figure 1. Replace Contactor.

Table 1. Contactor Operation.

CONTACTOR STATUS	CONTINUITY BETWEEN PINS	NO CONTINUITY BETWEEN PINS
Power NOT Applied	32 and 33	21 and 22 11 and 12 A1 and A2 B1 and B2 C1 and C2
Power Applied	21 and 22 11 and 12 A1 and A2 B1 and B2 C1 and C2	32 and 33

- If all multimeter indications are correct, install contactor terminal shield (3), four flat washers (2), and screws (1).
- Replace contactor if any multimeter indication is not as listed in Table 1.

END OF TASK**INSTALLATION**

- Position contactor K1 or K2 (9) on studs (20).
- Install four flat washers (19), lock washers (18), and nuts (17).
- Refer to wiring diagram (Figure FO-1) and tags installed in removal. Connect applicable terminal lugs of W9 wires to contactor terminals (16) X, Y, 11, 12, 21, 22, 32, and 33. Remove tags.
- If terminal shields (3) of contactor are installed, remove four screws (1), lock washers (2) and terminal shields (3).
- Remove nuts (4), lock washers (5), and flat washers (6) from contactor terminals (8) A1, B1, C1, A2, B2, and C2.

NOTE

Leads W3, W4, and W5 (13, 14, and 15) must be installed along with leads W6, W7, and W8 (10, 11, and 12) when contactor K1 is being installed.

- Place free ends of jumpers W6, W7, and W8 (10, 11, and 12) on contactor K2 (9) terminals (8) A1, B1, and C1.
- Install flat washer (6), lock washer (5), and nut (4) on terminals (8) for A1, B1, and C1. Tighten nuts (4).
- Place power cable leads (7) on contactor terminals (8) A2, B2, and C2. Remove tags.
- Install flat washers (6), lock washers (5), and nuts (4) on contactor terminals (8) A2, B2, and C2.
- Install terminal shields (3), two lock washers (2) and screws (1) on contactor (9).

END OF TASK**REPLACEMENT**

Replace procedure is the same as removal and installation procedure.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****RESISTORS R1-R3: TEST, REMOVAL, INSTALLATION, REPLACE**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)
Soldering Gun (WP 0111, Table 2, Item 6)

Materials/Parts

Lock washers
Solder

Equipment Condition

Both generator sets shut down. (WP 0005, Stopping Power Plant Set.)
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

TEST AND INSPECTION**NOTE**

If testing R1 or R2, step 1 must be performed.

1. Remove four screws (Figure 1, Item 1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Measure resistance of R1 (5) or R2 (6) for 246.5-251.5 ohms. If resistance is out of tolerance, replace resistor.
3. Measure resistance of R3 (11) for 2465-2515 ohms. If resistance is out of tolerance, replace resistor.
4. If resistors R1 and R2 are within tolerance, place relay board assembly in position and secure with flat washers (3), lock washers (2), and screws (1).

END OF TASK**REMOVAL****NOTE**

If removing R1 or R2, step 1 must be performed.

1. Remove four screws (1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Tag and unsolder leads from resistor.
3. Remove two nuts (9), lock washers (8), flat washers (7), screws (10), and resistor (5, 6, or 11).

END OF TASK**INSTALLATION**

1. Install resistor (5, 6, or 11), two screws (10), flat washers (7), lock washers (8), and nuts (9).
2. Solder leads to resistor.
3. Position relay board assembly (4) and install four flat washers (3), lock washers (2), and screws (1).

END OF TASK**REPLACEMENT**

Replace procedure is the same as removal and installation procedure.

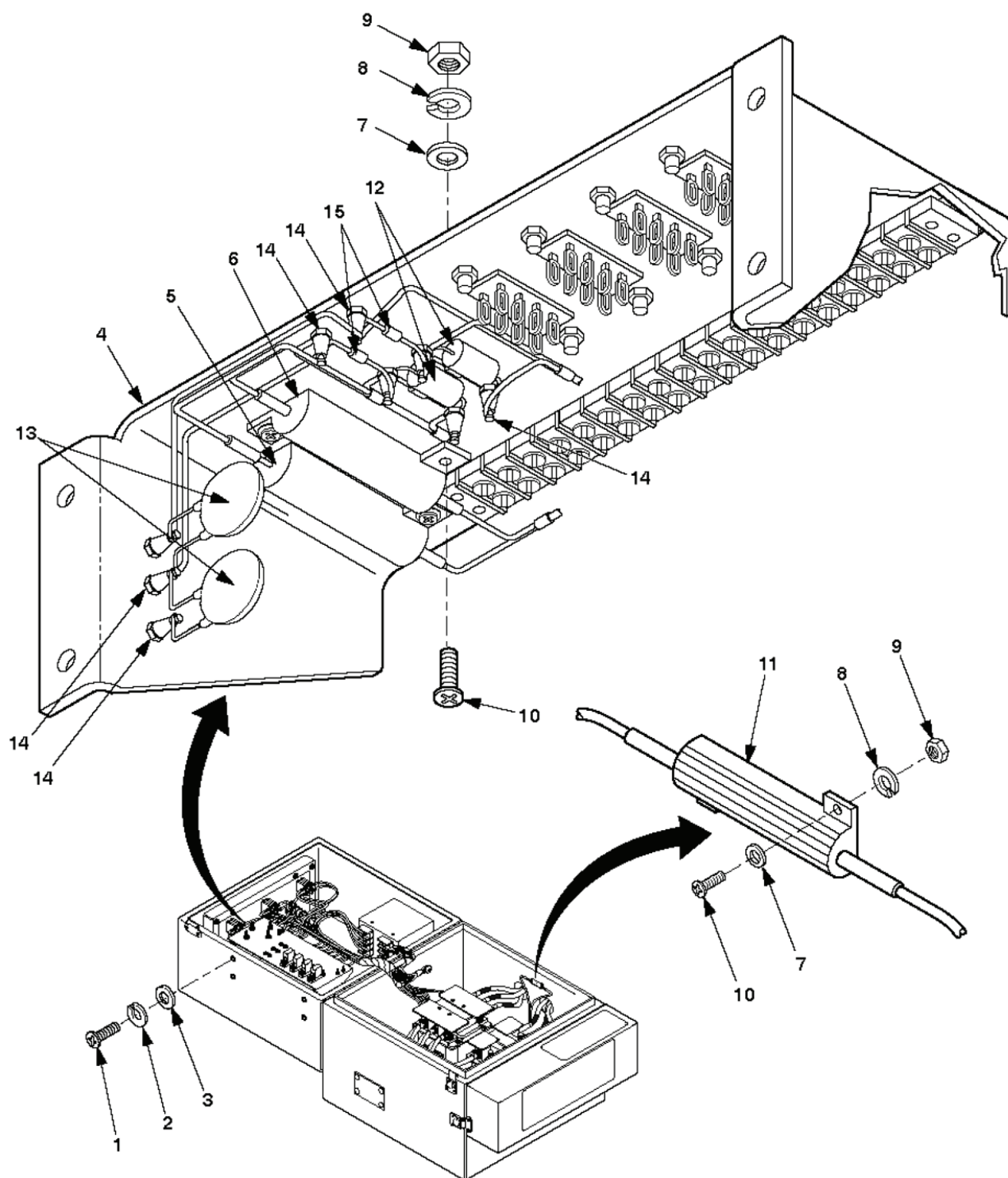


Figure 1. Switch Box Components Replacement.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****CAPACITORS C1-C4: TEST, REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)
Soldering Gun (WP 0111, Table 2, Item 6)

Materials/Parts

Solder

References

Resistors R1-R3 (WP 0048, Figure 1, Items 5, 6, and 11)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

NOTE

To perform procedure refer to FO-1.

TEST AND INSPECTION

1. Remove four screws (WP 0048, Figure 1, Item 1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Discharge capacitors C1 and C2 (12) and C3 and C4 (13) by shorting across terminals.
3. Isolate capacitors C1 and C2 at E5 and E2 respectively. Tag and remove wire W11-34 at TB1-18 to isolate capacitors C3 and C4.
4. Disconnect one end of capacitor and check continuity between terminals, using a multimeter in the 200 k/ohms range. The meter needle should deflect and return to infinity within a few seconds. (If using a digital meter, the readout should run upscale to infinity).
5. If capacitor fails test, replace it. Refer to removal and installation procedures.
6. If capacitor passes test, place relay board assembly (4) in position and secure with four flat washers (3), lock washers (2), and screws (1).

END OF TASK**REMOVAL**

1. Remove four screws (1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Unsolder capacitor (12 or 13) leads from stud terminals (14) and remove capacitor.

END OF TASK**INSTALLATION****CAUTION**

Refer to wiring diagram (Figure FO-1) and observe polarity of capacitors C1 and C2 before installing. Failure to observe this caution could result in damage to capacitors.

1. Solder capacitor (12 or 13) leads to terminal studs (14) as applicable.
2. Invert relay board assembly (4) and install four flat washers (3), lock washers (2), and screws (1).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****DIODES CR1-CR4: TEST, REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Multimeter (WP 0111, Table 2, Item 2)
Soldering Gun (WP 0111, Table 2, Item 6)

Materials/Parts

Solder

References

Resistors R1-R3 (WP 0048, Figure 1, Item 1)
Wiring Diagram (FO-1)

Equipment Condition

Both generator sets shut down (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Switch box cover open.

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

High voltage is produced when generator set is in operation. Do not connect to a load that is not protected with appropriate safety devices. Do not connect from output terminal board to output terminal board unless directed by higher command. Never attempt to start the generator set unless it is properly grounded. Do not ground yourself in standing water. Never attempt to connect or disconnect load cables while the generator set is running. Do not contact output cables when operating this generator set. Make sure that the connection between generator set and load is completely deenergized (safety device opens circuit) prior to disconnecting load cables or performing maintenance on the output terminal board. Failure to comply may cause injury or death to personnel.

WARNING

Shut down generator sets before performing internal inspection of switch box. Failure to comply with this warning can cause injury or death to personnel.

TEST AND INSPECTION**NOTE**

To perform procedure refer to FO-1.

1. Remove four screws (WP 0048, Figure 1, Item 1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Unsolder one end of diode (15) to be tested.
3. Set multimeter on R x 1 range, and measure the resistance between diode terminals. Reverse multimeter leads and measure again. Resistance should be infinity in one direction and less than 30 ohms in the other.

END OF TASK**REMOVAL**

1. Remove four screws (1), lock washers (2), and flat washers (3) and invert relay board assembly (4).
2. Unsolder diode (15) from stud terminal (14) and remove diode.

END OF TASK**INSTALLATION**

1. Refer to wiring diagram (Figure FO-1) and solder diode leads to terminal studs (14) as applicable.
2. Invert relay board assembly (4) and install four flat washers (3), lock washers (2), and screws (1).

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****PU-797A AND AN/MJQ-35A FLOOR AND FENDER: REMOVAL, REPAIR, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Rivet Gun (WP 0111, Table 2, Item 6)
¼ inch Drill (WP 0111, Table 2, Item 5)
Tool Kit, Body & Fender Repair (WP 0111, Table 2, Item 8)

Materials/Parts

Rivets (WP 0115, Table 1, Items 6 and 7)

References

Fire Extinguisher Bracket (WP 0030)
Data Plate and Reflector (WP 0032)
TM 9-2330-392-14&P

Equipment Condition

Generator set shut down (WP 0005, Stopping Power Plant Set).
Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Generator sets removed as required (AN/MJQ-35A); (WP 0040).
Switch Box assembly removed (AN/MJQ-35A Roadside fender only) (WP 0021 (OLD) or WP 0022 (NEW)).

NOTE

The following warnings apply to all maintenance tasks in this work package.

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

WARNING

When lifting generator set, use lifting equipment with minimum lifting capacity of 1,750 pounds (793.8 kg). Do not stand or put arms, legs, or any part of the body under hoisted load. Do not permit generator set to swing. Failure to comply with this warning can result in personal injury or death and damage to equipment.

REMOVAL

1. Floors

NOTE

PU-797A and AN/MJQ-35A trailers have center and side floors or platforms riveted to the trailer. The side floors are in two sections.

- a. Remove rivets (Figure 1, Item 1) and floor sections (2) from trailer chassis (3), using ¼ inch drill.

2. Fenders

- a. If necessary, remove the following:

- (1) Data plate (WP 0032).
- (2) Fire extinguisher and bracket (WP 0030).
- (3) Side marker light and reflector (TM 9-2330-392-14&P).

- b. Remove rivets (Figure 2, Item 1) and fender (2) from trailer chassis (3), using ¼ inch drill.

END OF TASK**REPAIR**

1. Floors

Repair of floors consists of welding, straightening, and spot painting as required.

2. Fenders

Repair of fenders consists of welding, straightening, and spot painting as required, and replacement of rivets (4), fender angle support (5), and tail light bracket (6) (Figure 2).

END OF TASK**INSTALLATION**

1. Floors

Place floor section (Figure 1, Item 2) on trailer chassis (3) and secure with rivets (1).

2. Fenders

- a. Place fender (Figure 2, Item 2) on trailer chassis (3) and secure with rivets (1)

- b. If removed, install the following:

- (1) Data plate (WP 0032).
- (2) Fire extinguisher and bracket (WP 0030).
- (3) Side marker light and reflector (TM 9-2330-392-14&P).

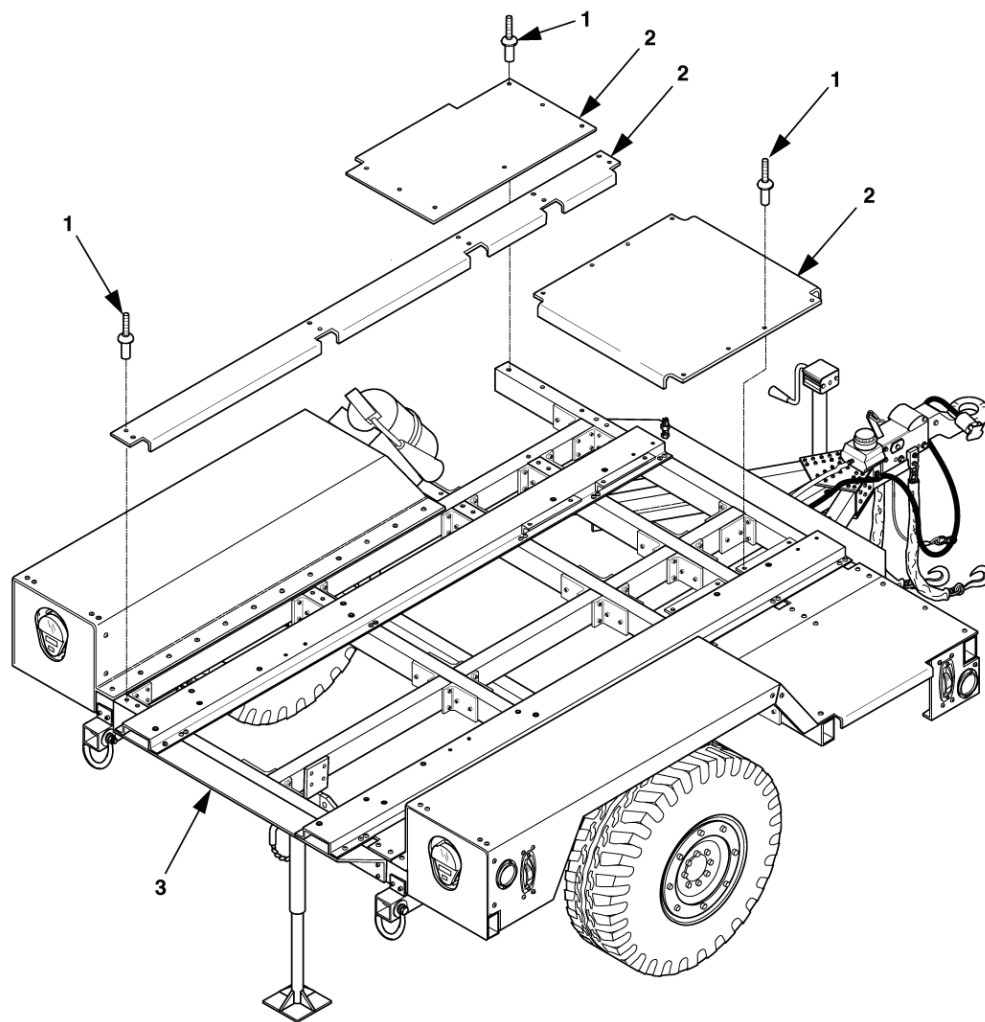


Figure 1. PU-797A and AN/MJQ-35A Floor Replacement.

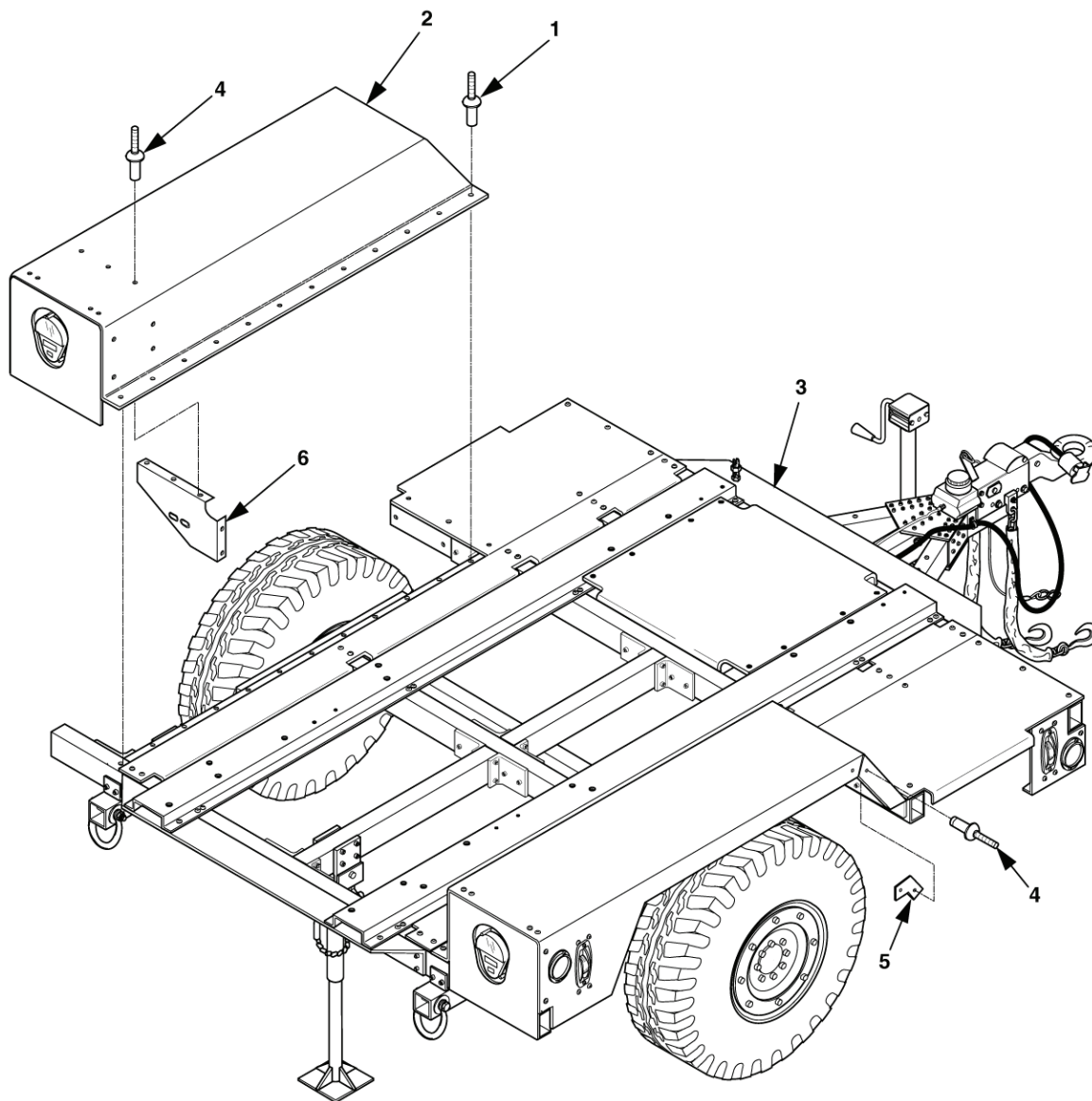


Figure 2. PU-797A and AN/MJQ-35A Fender Replacement.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****AN/MJQ-35, AN/MJQ-36, AND PU-797 TRAILER FENDER REPAIR**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Body and Fender Repair Tool Kit (WP 0111, Table 2, Item 8)
Shop Equipment, Welding, Field (WP 0111, Table 2, Item 7)

Materials/Parts

Paint

Equipment Condition

AN/MJQ-35 Trailer Fender removed (WP 0033).
AN/MJQ-36 Trailer Fender removed (WP 0036).
PU-797 Trailer Fender removed (WP 0035).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REPAIR

Repair of the trailer fender consists of welding, straightening, and spot painting as required.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
AN/MJQ-35 GENERATOR MOUNTING RAIL: REMOVAL, REPAIR, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Tool, Blind Nut (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking
Nuts, Blind

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Appropriate generator set removed (WP 0040).
Accessory box removed (AN/MJQ-35 curbside Rear Generator rail) (WP 0029).
Splash Guard removed (AN/MJQ-35) (WP 0033).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL**NOTE**

Rails may be shimmed; note location and quantity. Mounting hardware quantity may vary depending on mounting rail being removed.

Remove self-locking nuts (Figure 1, Item 3), flat washers (2), cap screws (1), and mounting rail (4).

END OF TASK**REPAIR****NOTE**

Blind nuts are located at rear of mounting rails for rear generator.

Repair of mounting rails consists of replacing blind nuts (5). Refer to instructions supplied with blind nut tool.

END OF TASK

INSTALLATION

Install mounting rail (4), cap screws (1), flat washers (2), and self-locking nuts (3) on trailer chassis (6).

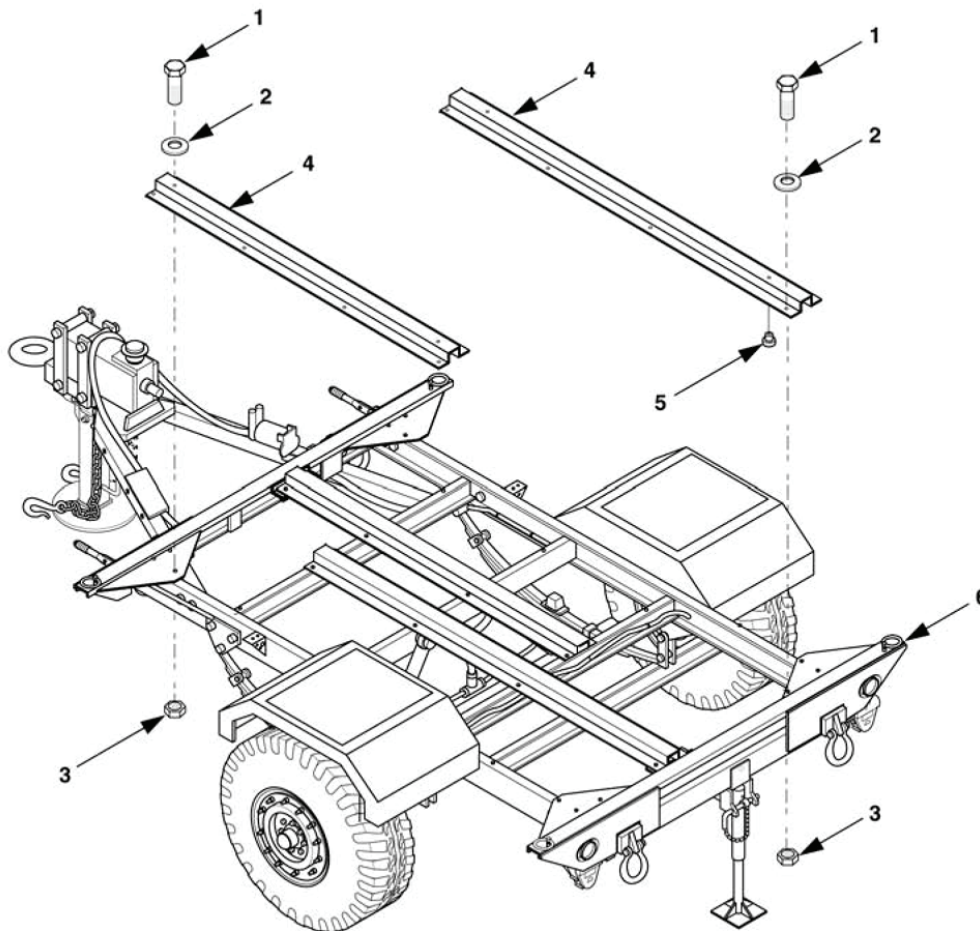


Figure 1. Replace AN/MJQ-35 Generator Mounting Rail.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
AN/MJQ-36 GENERATOR MOUNTING RAIL: REMOVAL, REPAIR, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Tool, Blind Nut (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking
Nuts, Blind

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Both generator sets removed (WP 0040).
Accessory box removed (WP 0029).
Fenders and platform removed (WP 0036).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL**NOTE**

Rails may be shimmed; note location and quantity. Mounting hardware quantity may vary depending on mounting rail being removed. Longer bolts are used at front end of mounting rails.

Remove self-locking nuts (Figure 1, Item 1), flat washers (2), cap screws (3) and mounting (4).

END OF TASK**REPAIR****NOTE**

Blind nuts are located at rear of mounting rails for rear generator.

Repair of mounting rails consists of replacing blind nuts (5). Refer to instructions supplied with blind nut tool.

END OF TASK

INSTALLATION

Position mounting rail (4) on trailer and loosely install cap screws (3), flat washers (2), self-locking nuts (1), then tighten.

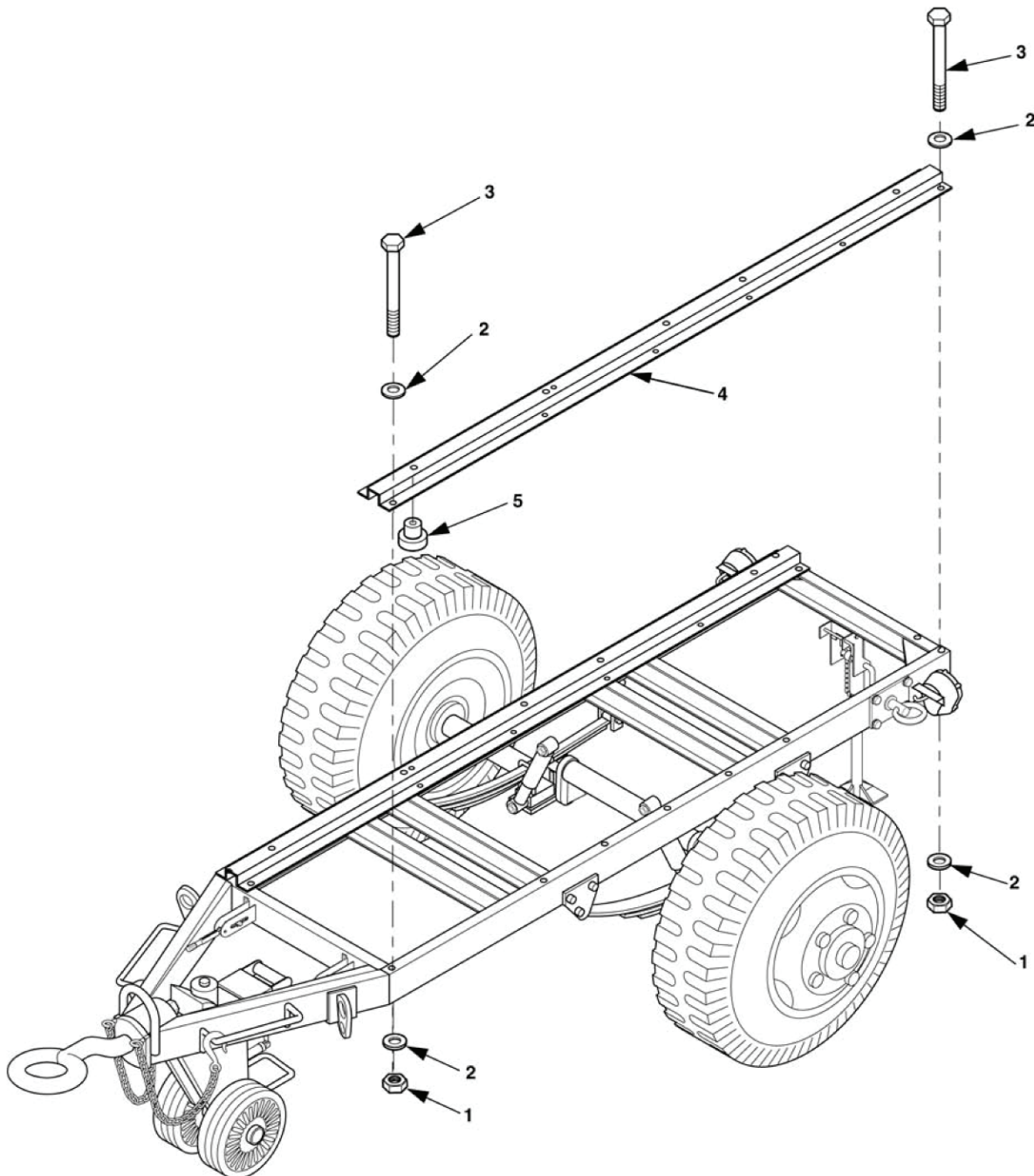


Figure 1. Replace AN/MJQ-36 Generator Mounting Rail.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
PU-797 GENERATOR MOUNTING RAIL: REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)

Materials/Parts

Nuts, Self-locking

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Generator set removed (WP 0040).
Accessory box removed (WP 0029).
Front platform removed (WP 0034).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL

Remove self-locking nuts (Figure 1, Item 4), flat washers (2), cap screws (1), and mounting rail (3).

END OF TASK**INSTALLATION**

Install mounting rail (3), cap screws (1), flat washers (2), and self-locking nuts (4).

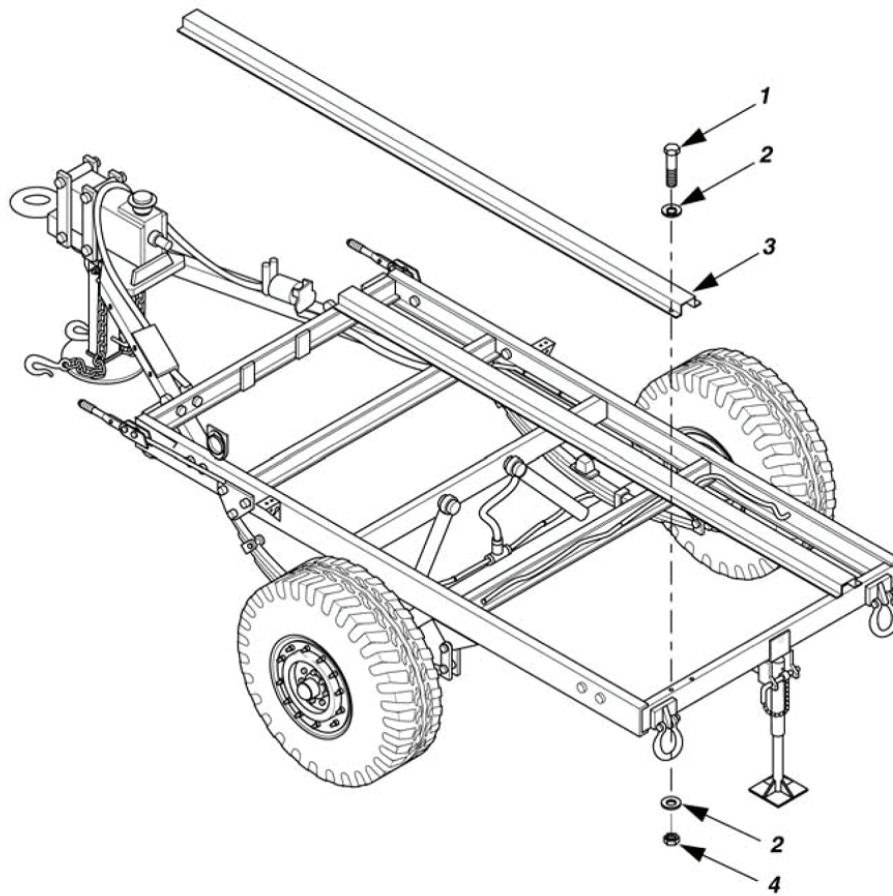


Figure 1. Replace PU-797 Generator Mounting Rail.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
AN/MJQ-35 TRAILER LIFTING BRACKET: REMOVAL, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Jack Stands (WP 0111, Table 2, Item 5)

Materials/Parts

Nuts, Self-locking

Personnel Required

Two

References

Trailer Lifting Ring (WP 0031)
Data Plate and Reflector (WP 0032)
Generator Set (WP 0040)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Front generator set removed (if front lifting Bracket is being removed) (WP 0040).
Rear mounting rails removed (if rear lifting bracket is being replaced) (WP 0053).
Accessory box removed (if front lifting bracket is being replaced) (WP 0029).
Front mounting rails removed (if front lifting bracket is being replaced) (WP 0053).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL

1. REMOVE FRONT LIFTING BRACKET.

NOTE

If replacing front lifting bracket, proceed to step a. If removing front lifting bracket, proceed to step b.

- a. Remove lifting rings (WP 0031).

WARNING

Before removing trailer leveling-support jack, support rear of trailer with jack stand(s). Failure to comply with this warning can cause severe personal injury or death.

- b. Separate the power cable from front lifting bracket (2) by removing nut (Figure 1, Item 20), flat washer (19), and screw (18) from cable clamp (21).

WARNING

If trailer is not coupled to towing vehicle, ensure that wheels are securely chocked.
Failure to comply with this warning can cause trailer to roll, resulting in severe personal injury and damage to equipment.

- c. Release handbrakes (1).
 - d. Separate brake relocating brackets (4) from frame by removing two self-locking nuts (6), flat washers (5), and cap screws (3).
 - e. Remove ten self-locking nuts (16), flat washers (15), and cap screws (17) from front lifting bracket (2).
 - f. Remove three self-locking nuts (13), flat washers (14), and cap screws (12) that attach front lifting bracket (2) to top of frame.
 - g. Remove front lifting bracket (2).
2. REMOVE REAR LIFTING BRACKET.

NOTE

If replacing rear lifting bracket, proceed to step a. If removing rear lifting bracket, proceed to step b.

- a. Remove lifting rings (WP 0031) and reflectors (WP 0032).
- b. Separate the tail light bracket (Figure 1, Item 11) from trailer chassis by removing two self-locking nuts (8), flat washers (9), and screws (10).
- c. Separate the power cable from rear lifting bracket (22) by removing nut (20), flat washer (19), and screw (18) from cable clamp (21).
- d. Remove ten self-locking nuts (16), flat washers (15), and cap screws (17) from rear lifting bracket (22).

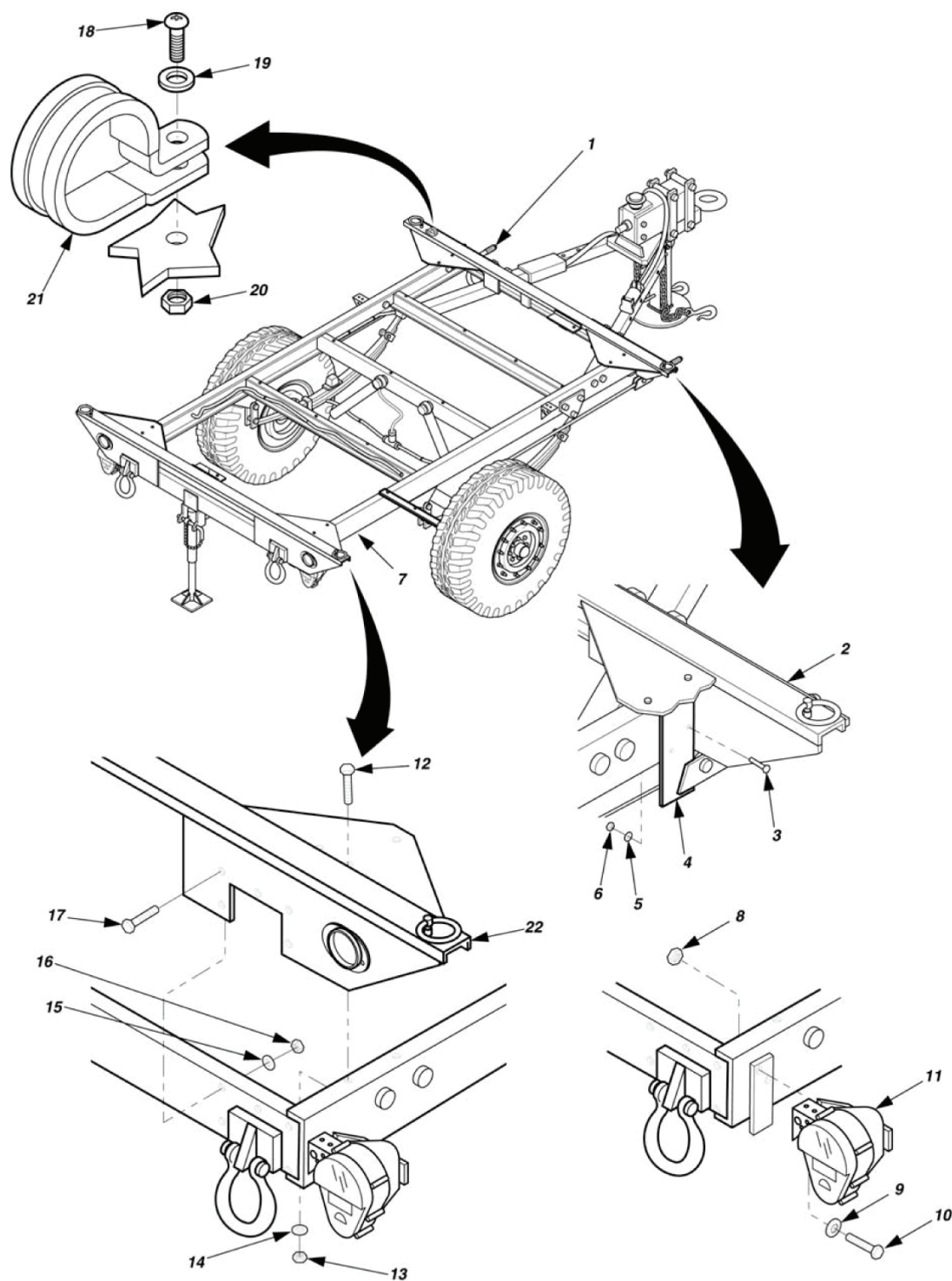


Figure 1. AN/MJQ-35 Trailer Lifting Bracket.

NOTE

Two sets of attaching hardware used on roadside and curbside top of bracket are removed when splash guard is removed.

- e. Remove screw (12), flat washer (14), and self-locking nut (13) from inboard top hole of rear lifting bracket (22).
- f. Remove rear lifting bracket (22).

END OF TASK

INSTALLATION

1. INSTALL FRONT LIFTING BRACKET.

- a. Position front lifting bracket (2) on trailer chassis (7).
- b. Loosely install ten cap screws (17), flat washers (15), and self-locking nuts (16) in front lifting bracket (2).
- c. Loosely install three cap screws (12), flat washers (14), and self-locking nuts (13) to attach front lifting bracket (2) to top of curbside front corner of trailer chassis (7).
- d. Install mounting rails (WP 0053).

NOTE

Loosely installed screws (12 and 17) will aid in alignment of holes in handbrake bracket.

- e. Position brake relocating brackets (4), with attached handbrake lever (1), and loosely install four cap screws (3), flat washers (5), and self-locking nuts (6).
- f. Tighten all self-locking nuts installed in steps b through e.
- g. Install front generator set (WP 0040).
- h. If front lifting bracket is a replacement, install lifting rings (WP 0031).
- i. Position power cable clamp (21) and install screw (18), flat washer (19), and nut (20).
- j. Set trailer handbrakes and remove wheel chocks.
- k. Remove jack stands.

2. INSTALL REAR LIFTING BRACKET.

- a. Position rear lifting bracket (22) on trailer chassis (7).
- b. Loosely install ten cap screws (17), flat washers (15), and self-locking nuts (16) in rear lifting bracket (22).

NOTE

Two sets of attaching hardware used on roadside and curbside top of bracket are installed when splash guard is installed.

- c. Loosely install cap screw (10), flat washer (14), and self-locking nut (13) to attach rear lifting bracket (22) to top of trailer chassis (7).

NOTE

Loosely installed screws (12 and 17) will aid in alignment of holes in handbrake bracket.

- d. Install tail light bracket (11), two screws (10), flat washers (9), and self-locking nuts (8).
- e. Tighten all self-locking nuts installed in Steps b and c.
- f. Install rear generator set (WP 0040).
- g. If rear lifting bracket is a replacement, install lifting rings (WP 0031) and reflectors (WP 0032).

- h. Position power cable clamp (21) and install screw (18), flat washer (19), and nut (20).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****PU-797A AND AN/MJQ-35A GENERATOR MOUNTING RAIL: REMOVAL, REPAIR, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Rivet Gun (WP 0111, Table 2, Item 4)

Materials/Parts

Rivets (WP 0115, Table 1, Items 6, 8, 9, and 10)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Accessory box removed (WP 0029).
Generator set removed (WP 0040).
Center floor removed (WP 0051).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL

Remove rivets (Figure 1, Items 1 and 2) and mounting rail (3) from trailer chassis (4).

END OF TASK**REPAIR**

Repair of generator mounting rails consists of replacing rivets (5) and doubler plates (6 and 7), and rivets (8) and angle supports (9 and 10) as required.

END OF TASK

INSTALLATION

Place mounting rail (3) on trailer chassis (4) and secure with rivets (1 and 2).

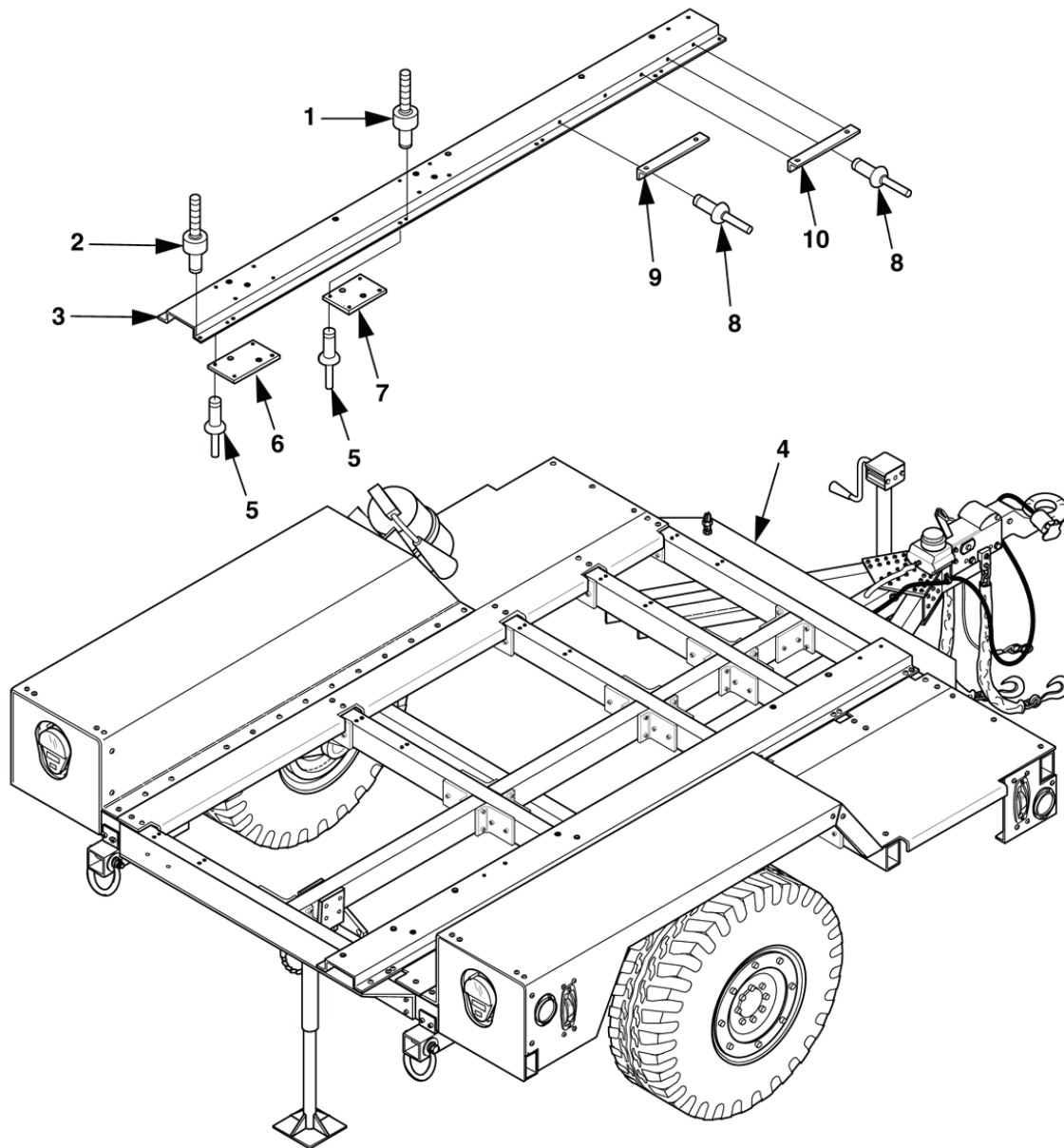


Figure 1. PU-797A and AN/MJQ-35A Generator Mounting Rail Replacement.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****LIGHT TACTICAL TRAILER REAR LEVELING-SUPPORT JACK: REMOVAL, REPAIR, INSTALLATION**

INITIAL SETUP:**Tools and Special Tools**

Tool Kit, General Mechanic's (WP 0111, Table 2, Item 9)
Jack Stand (WP 0111, Table 2, Item 5)

Materials/Parts

Pin, Cotter
Pin, Spring
Fitting, Lubrication (if needed)
Grease, GAA (WP 0114, Item 4)
Rivets (WP 0115, Table1, Item 11)

Equipment Condition

Trailer handbrakes set, front support leg/landing leg lowered, and rear leveling-support jack lowered (WP 0005, Positioning Power Plant/Power Unit).
Both generator sets shut down (WP 0005, Stopping Power Plant Set).

WARNING

Metal jewelry can conduct electricity and become entangled in generator set components. Remove all jewelry and do not wear loose clothing when working on equipment. Failure to comply may cause injury or death to personnel.

REMOVAL**WARNING**

Before removing trailer leveling-support jack, support rear of trailer with jack stand(s). Failure to comply with this warning can cause severe personal injury or death.

1. Support rear of trailer with jack stands.
2. Turn leg base (Figure 1, Item 1) to take weight off leg prop.
3. Remove either one of two cotter pins (2 or 3) from pivot shaft (4) and discard cotter pin.
4. Hold leg base (1) steady and remove pivot shaft (4) with remaining cotter pin in place.
5. Lift leg base (1) slightly to take weight off retaining pin (5) and remove retaining pin. Move leg base (1) and attached parts out of bracket (7).
6. Remove three rivets (6) and bracket (7) from trailer chassis (8).

END OF TASK

REPAIR

1. Refer to WP 0037.

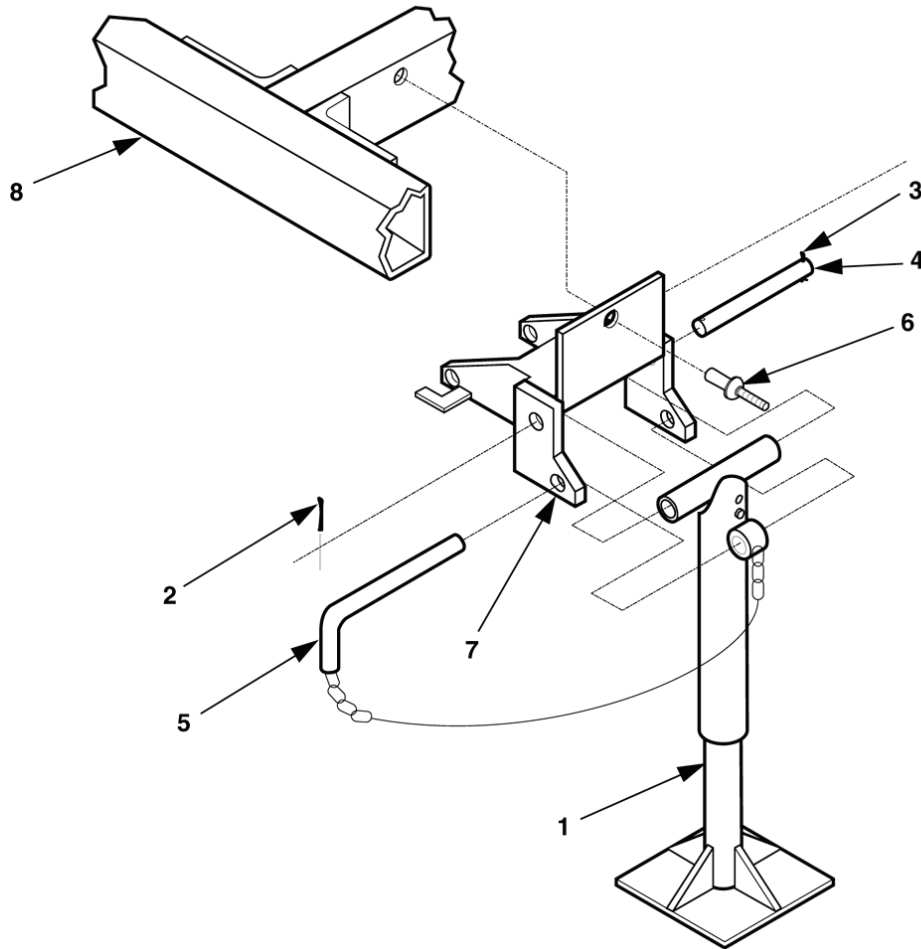


Figure 1. Rear Leveling-Support Jack Replacement, Light Tactical Trailer.

END OF TASK**INSTALLATION**

1. Install bracket (7) on trailer chassis (8), with three rivets (6).
2. Position leg base (1) and attached parts in bracket (7) and install retaining pin (5).
3. Position leg base (1) and install pivot shaft (4).
4. Install new cotter pin (2 or 3) in pivot shaft (4).
5. Lube rear leveling-support jack.

END OF TASK**END OF WORK PACKAGE**

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****PREPARATION FOR STORAGE OR SHIPMENT**

INITIAL SETUP:

Not Applicable

ADMINISTRATIVE STORAGE**Short Term Storage**

This type of storage is used when the power plant/power unit is expected to be stored from 1 to 45 days. The storage may be at destination after domestic shipment, or may be administrative storage when there is a shortage of maintenance manpower. For administrative storage:

- a. Perform current maintenance services and serviceability criteria evaluations before placing power plant/power unit in administrative storage. Correct shortcomings and deficiencies and check that all modification work orders have been applied.
- b. If possible, select an inside storage site. If inside storage is not available, a truck, van, conex container, or other container may be used.
- c. When in administrative storage, the power plant/power unit should be capable of being made mission ready within 24 hours unless a different time frame is directed by the approving authority.

Intermediate Term Storage

This type of storage is used when the power plant/power unit is expected to be stored from 45 to 180 days.

Long Term Storage

This type of storage is used when the power plant/power unit is expected to be stored for more than 180 days.

END OF WORK PACKAGE

FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****ILLUSTRATED LIST OF MANUFACTURED ITEMS INTRODUCTION****ILLUSTRATED LIST OF MANUFACTURED ITEMS INTRODUCTION****Scope**

WP 0061 through WP 0068 includes complete instructions for making items authorized to be manufactured or fabricated at the opfield maintenance level.

How to Use the Index of Manufactured Items

A part number index in alphanumeric order is provided for cross-referencing the part number of the item to be manufactured to the information which covers fabrication criteria.

Explanation of the Illustrations of Manufactured Items

All instructions needed by maintenance personnel to manufacture the item are included on the illustrations. All bulk materials needed for manufacture of an item are listed by part number or specification number in a tabular list on the illustration.

INDEX OF MANUFACTURED ITEMS

P/N AND/OR DWG NO	PART DESCRIPTION	REFERENCE
13229E5828	Electrical Leads - W3, W4, W5, W6, W7, and W8	WP 0061
13229E5829	Relay Board Harness Assembly W11	WP 0062
13229E5831	Switch Box Harness Assembly W9 (OLD)	WP 0063
	Switch Box Harness Assembly W9 (NEW)	WP 0064
13229E5832	Output Connector Harness Assembly W10	WP 0065
13229E6795	Cable Assembly W1 and W2	WP 0066
22806-000-00	Deck Covering	WP 0067
2B2B2C1F2	Switch Box Gasket	WP 0068

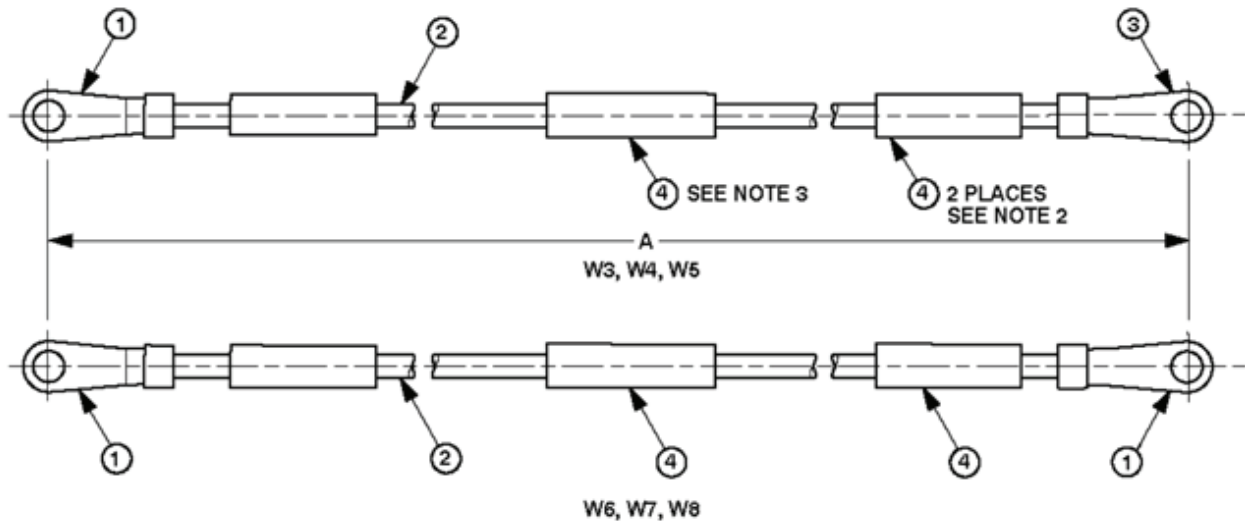
END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

ELECTRICAL LEADS - W3, W4, W5, W6, W7, AND W8

P/N 13229E5828

**NOTES:**

1. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.
2. HOT STAMP LEGEND A, INDICATED IN TABULATION, USING .09 - .16 HIGH BLACK CHARACTERS, IN TWO PLACES (180° APART) ON INSULATION SLEEVING, FIND NO. 4, IN ACCORDANCE WITH MIL-M-60903, WITHIN 2.50 INCHES OF TERMINAL LUG.
3. HOT STAMP LEGEND B, INDICATED IN TABULATION, AND "97403-13229E5828- " WITH APPROPRIATE DASH NUMBER ON INSULATION, FIND NO. 4, IN ACCORDANCE WITH MIL-M-60903. LOCATE APPROXIMATELY AT CENTER OF LEAD.

DIMENSIONS

DASH NO.	DIMENSION A +/- 0.50	MARKING	
		LEGEND A	LEGEND B
-1	16.00	K1-A1 - L1	W3
-2	18.00	K1-B1 - L2	W4
-3	23.00	K1-C1 - L3	W5
-4	12.00	K1-C1 - K2-C1	W6
-5	12.00	K1-B1 - K2-B1	W7
-6	12.00	K1-A1 - K2-A1	W8

Figure 1. Electrical Leads - W3, W4, W5, W6, W7, and W8 (Sheet 1 of 2).

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED						DESCRIPTION	SPECIFICATION
		-1	-2	-3	-4	-5	-6		
1	MS25036-125	1	1	1	2	2	2	TERMINAL LUG, 4 AWG, .375 STUD SIZE	
2	M5086/2-4-9	AR	AR	AR	AR	AR	AR	WIRE, ELECTRICAL, 4 AWG, WHT	SAE-AS50861/2-
3	MS20659-145	1	1	1	-	-	-	TERMINAL LUG, 4 AWG, .500 STUD SIZE	
4	M23053/5-108-4	3	3	3	3	3	3	INSULATION SLEEVING, HEAT SHRINKABLE, .50 ID AS SUPPLIED X 2.50 LONG	SAE-AMS-I-23053/2

Figure 1. Electrical Leads - W3, W4, W5, W6, W7, and W8 (Sheet 2 of 2).

END OF TASK

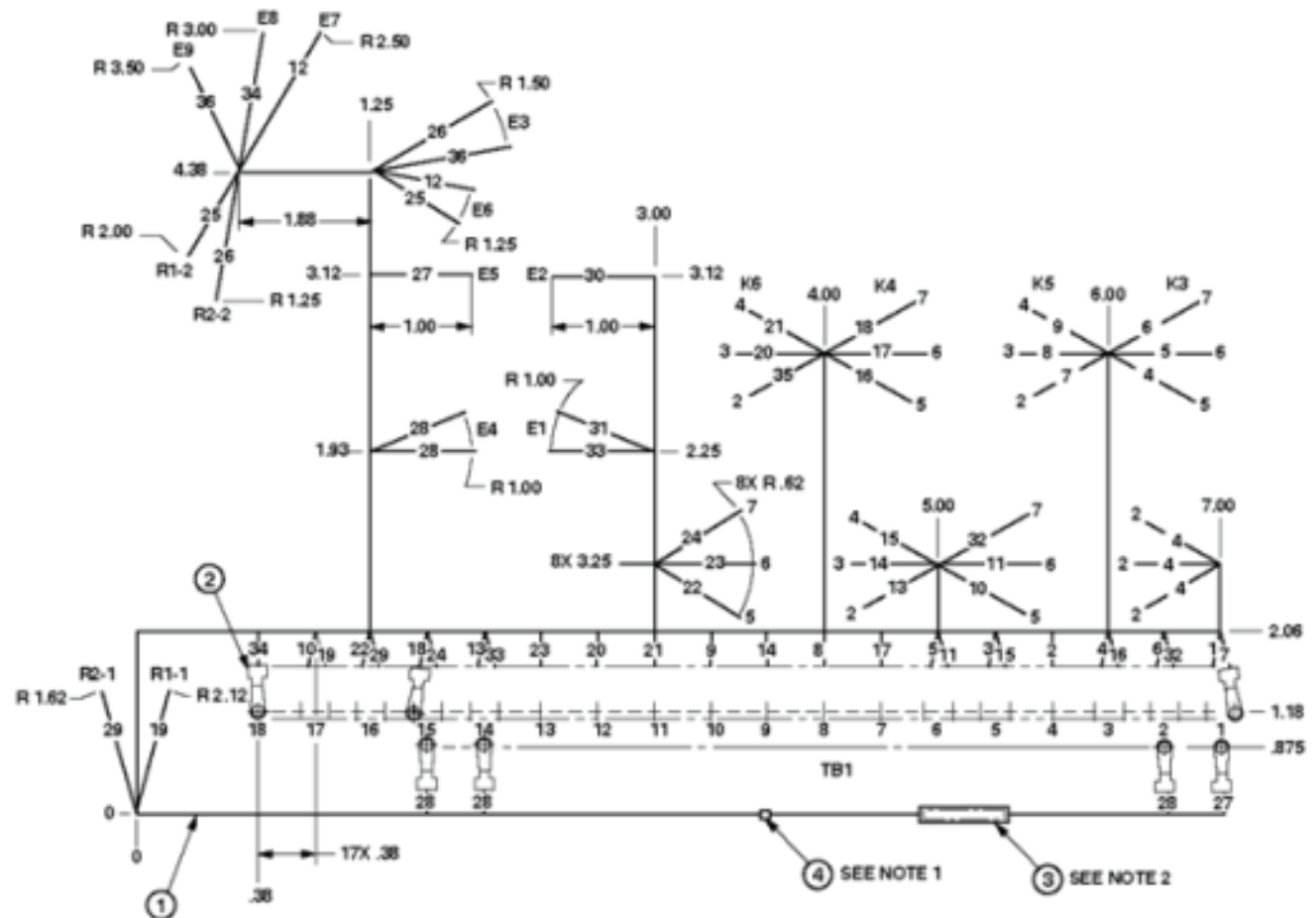
END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

RELAY BOARD HARNESS ASSEMBLY W11

P/N 13229E5829



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	M22759/16-20-9	AR	WIRE, ELECTRICAL, 20 AWG, WHITE	MIL-W-22759/16
2	MS25036-101	31	TERMINAL LUG, CRIMP STYLE, INSULATED, 22-18 TERMINAL SIZE, .138 STUD SIZE	
3	M23053/5-107-4	1	INSULATION SLEEVING, .375 ID X 1.50 L	SAE-AMS-23053/2
4	MS3367-4-9	AR	STRAP, TIEDOWN	
5	Sn60Pb40	AR	SOLDER	J-STD-004,5,6
6	M23053/5-105-4	70	INSULATION SLEEVING, .187 ID X 1.50 L	SAE-AMS-23053/2

Figure 1. Relay Board Harness Assembly W11 (Sheet 1 of 2).

NOTES:

1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO.4.
2. HOT STAMP "97403-13229E5829" IN ACCORDANCE WITH MIL-M-60903 ON SLEEVING FIND NO. 3.
3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09-.16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO.6, IN ACCORDANCE WITH MIL-M-60903. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. APPROPRIATE ADDRESS SHALL CONSIST OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
4. STRIP AND TIN WIRES IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
1	XK3-2		TB1-1	2	1
2	XK3-3		TB1-4	2	1
3	XK3-4		TB1-5	2	1
4	XK3-5		TB1-3	2	1
5	XK3-6		TB1-6	2	1
6	XK3-7		TB1-2	2	1
7	XK5-2		TB1-1	2	1
8	XK5-3		TB1-8	2	1
9	XK5-4		TB1-10	2	1
10	XK5-5		TB1-17	2	1
11	XK5-6		TB1-6	2	1
12	E-7		E-6		1
13	XK4-2		TB1-14	2	1
14	XK4-3		TB1-9	2	1
15	XK4-4		TB1-5	2	1
16	XK4-5		TB1-3	2	1
17	XK4-6		TB1-7	2	1
18	XK4-7		TB1-15	2	1

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
19	R1-1		TB1-17	2	1
20	XK6-3		TB1-12	2	1
21	XK6-4		TB1-11	2	1
22	XK6-5		TB1-16	2	1
23	XK6-6		TB1-13	2	1
24	XK6-7		TB1-15	2	1
25	R1-2		E-6		1
26	R2-2		E-3		1
27	E-5		TB1-1	2	1
28	E-4		TB1-2	2	1
29	R2-1		TB1-16	2	1
30	E-2		TB1-15	2	1
31	E-1		E-4		1
32	XK5-7		TB1-2	2	1
33	E-1		TB1-14	2	1
34	E-8		TB1-18	2	1
35	XK6-2		TB1-14	2	1
36	E9		E3		1

Figure 1. Relay Board Harness Assembly W11 (Sheet 2 of 2).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

SWITCH BOX HARNESS ASSEMBLY W9 (OLD)

P/N 13229E5831

NOTE

MIL-I-23053/5 is now changed to SAE-AMS-I-23053/2 SOLDER, QQS 571 is now changed to J-STD-004/5/6

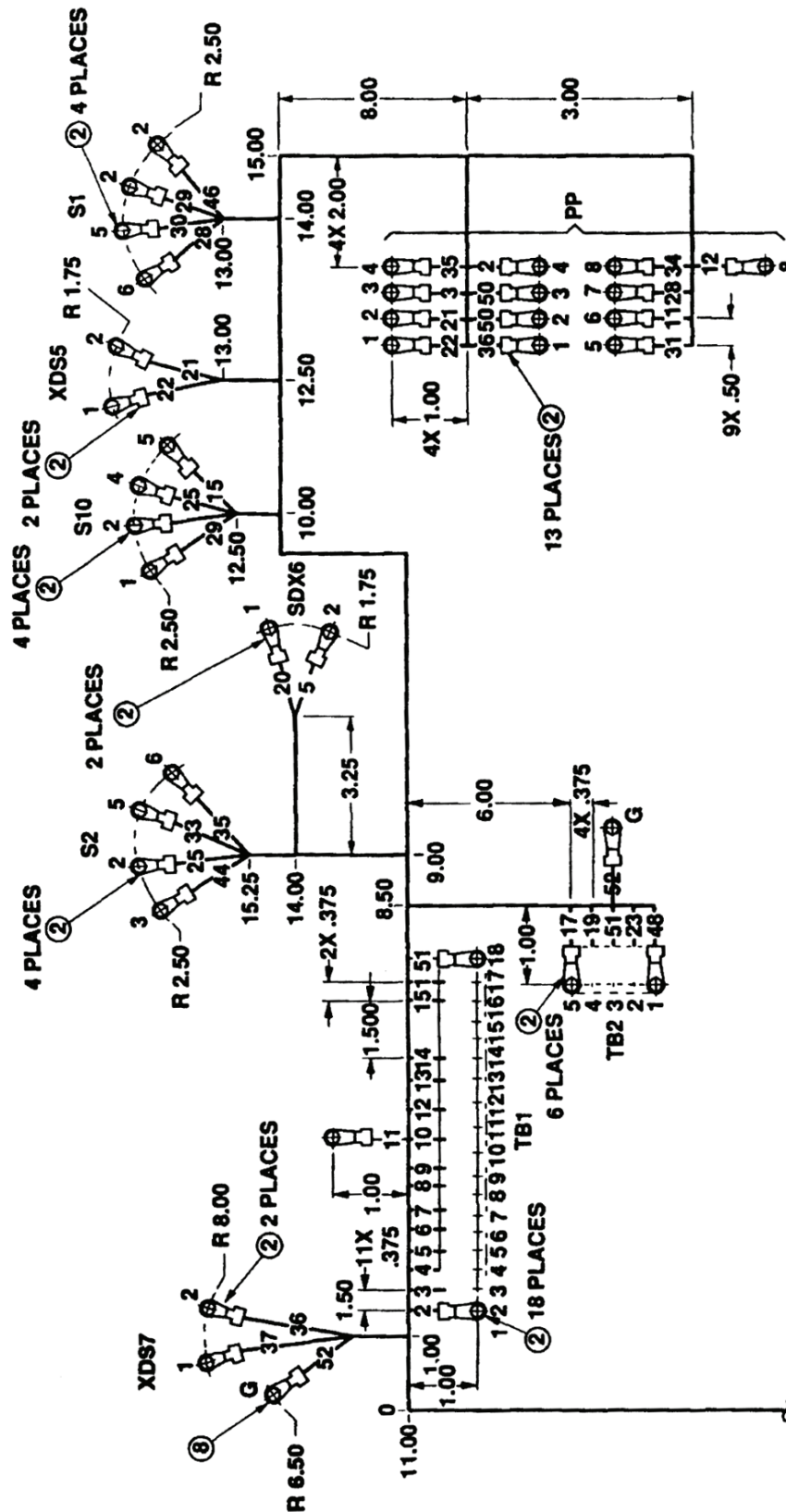


Figure 1. Switch Box Harness Assembly W9 (OLD) (Sheet 1 of 4).

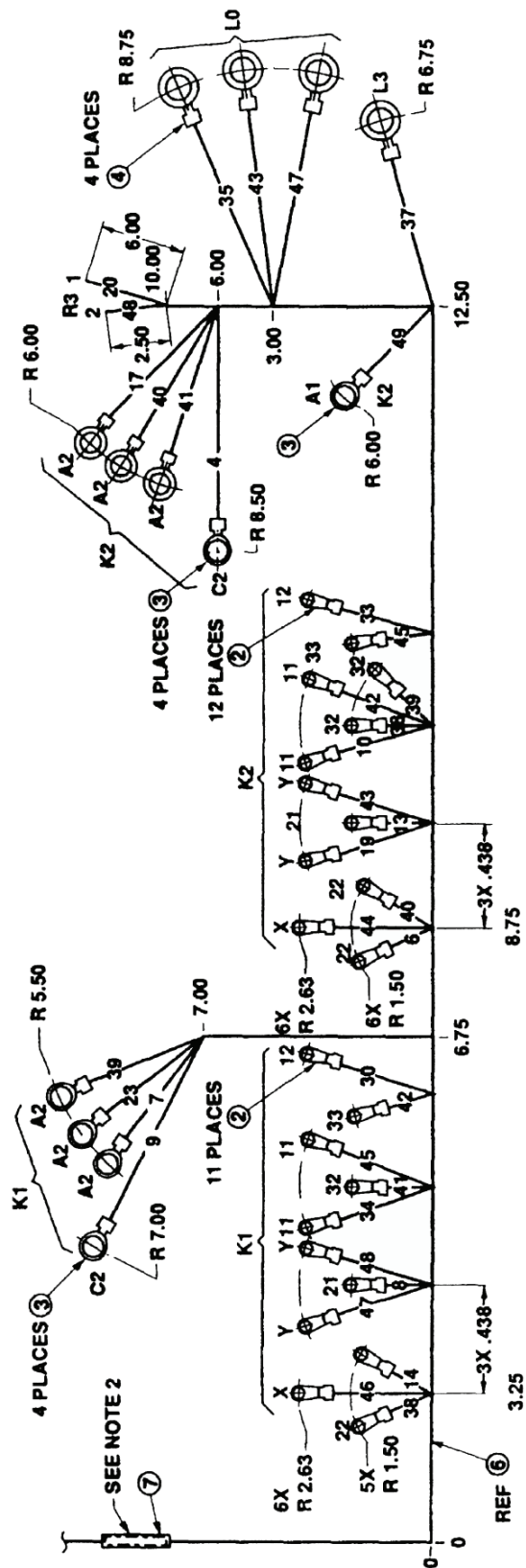


Figure 1. Switch Box Harness Assembly W9 (OLD) (Sheet 2 of 4).

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	M22759/16-16-9	AR	WIRE, ELECTRICAL, 16 AWG, WHITE	MIL-W-22759/16
2	MS25036-106	70	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .138 STUD SIZE	
3	MS25036-110	9	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .375 STUD SIZE	
4	MS25036-155	4	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .500 STUD SIZE	
5	Sn60Pb40	AR	SOLDER	QQ-S-571
6	MS3367-4-9	AR	STRAP, TIEDOWN	
7	M23053/5-107-4	1	INSULATION SLEEVING, .375 ID X 1.50 L	MIL-I-23053/5
8	MS25036-108	1	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .190 STUD SIZE	
9	MS23053/5-105-4	104	INSULATION SLEEVING, .187 ID X L AS REQUIRED	MIL-I-23053/5

NOTES:

1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO.6.
2. HOT STAMP "97403-13229E5831" IN ACCORDANCE WITH MIL-M-60903 ON SLEEVING FIND NO. 3.
3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09 - .16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO.9, IN ACCORDANCE WITH MIL-M-60903. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. APPROPRIATE ADDRESS SHALL CONSIST OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
4. STRIP AND TIN WIRES IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

Figure 1. Switch Box Harness Assembly W9 (OLD) (Sheet 3 of 4).

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
1	TB1-17	2	S10-2	2	1
2	TB1-2	2	PP-4	2	1
3	TB1-3	2	PP-3	2	1
4	TB1-4	2	K2-C2	3	1
5	TB1-5	2	XDS6-2		1
6	TB1-6	2	K2-22	2	1
7	TB1-7	2	K1-A2	3	1
8	TB1-8	2	K1-21	2	1
9	TB1-9	2	K1-C2	3	1
10	TB1-10	2	K2-11	2	1
11	TB1-10	2	PP-6	2	1
12	TB1-11	2	PP-8	2	1
13	TB1-12	2	K2-21	2	1
14	TB1-13	2	K1-22	2	1
15	TB1-16	2	S10-5	2	1
16	-	-	-	-	-
17	K2-5	-	K2-A2	3	1
18	-	-	-	-	-
19	TB2-4	2	K2-Y	2	1
20	XDS6-1	-	R3-1	-	1
21	XDS5-2	-	PP-2	2	1
22	XDS5-1	-	PP-2	2	1
23	TB2-2	2	K1-A2	3	1
24	-	-	-	-	-
25	S2-2	2	S10-4	2	1
26	-	-	-	-	-

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
27	-	-	-	-	-
28	S1-6	2	PP-7	2	1
29	S1-2	2	S10-1	2	1
30	S1-5	2	K1-12	2	1
31	S2-6	2	PP-5	2	1
32	-	-	-	-	-
33	S2-5	2	K2-12	2	1
34	K1-11	2	PP-8	2	1
35	PP-4	2	L0	4	1
36	XDS7-2	-	PP-1	2	1
37	XDS7-1	-	L3	2	1
38	K1-22	2	K2-32	2	1
39	K2-32	2	K1-A2	3	1
40	K2-22	2	K2-A2	3	1
41	K1-32	2	K2-A2	3	1
42	K1-33	2	K2-11	2	1
43	K2-Y	2	L0	4	1
44	K2-X	2	S2-3	2	1
45	K2-33	2	K1-11	2	1
46	K1-X	2	S1-3	2	1
47	K1-Y	2	L0	4	1
48	K1-Y	2	TB2-1	2	1
49	K2-A1	3	R3-2	-	1
50	PP-2	2	PP-3	2	1
51	TB1-18	2	TB2-3	2	1
52	G	8	TB2-3	2	1

Figure 1. Switch Box Harness Assembly W9 (OLD) (Sheet 4 of 4).

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

SWITCH BOX HARNESS ASSEMBLY W9 (NEW)

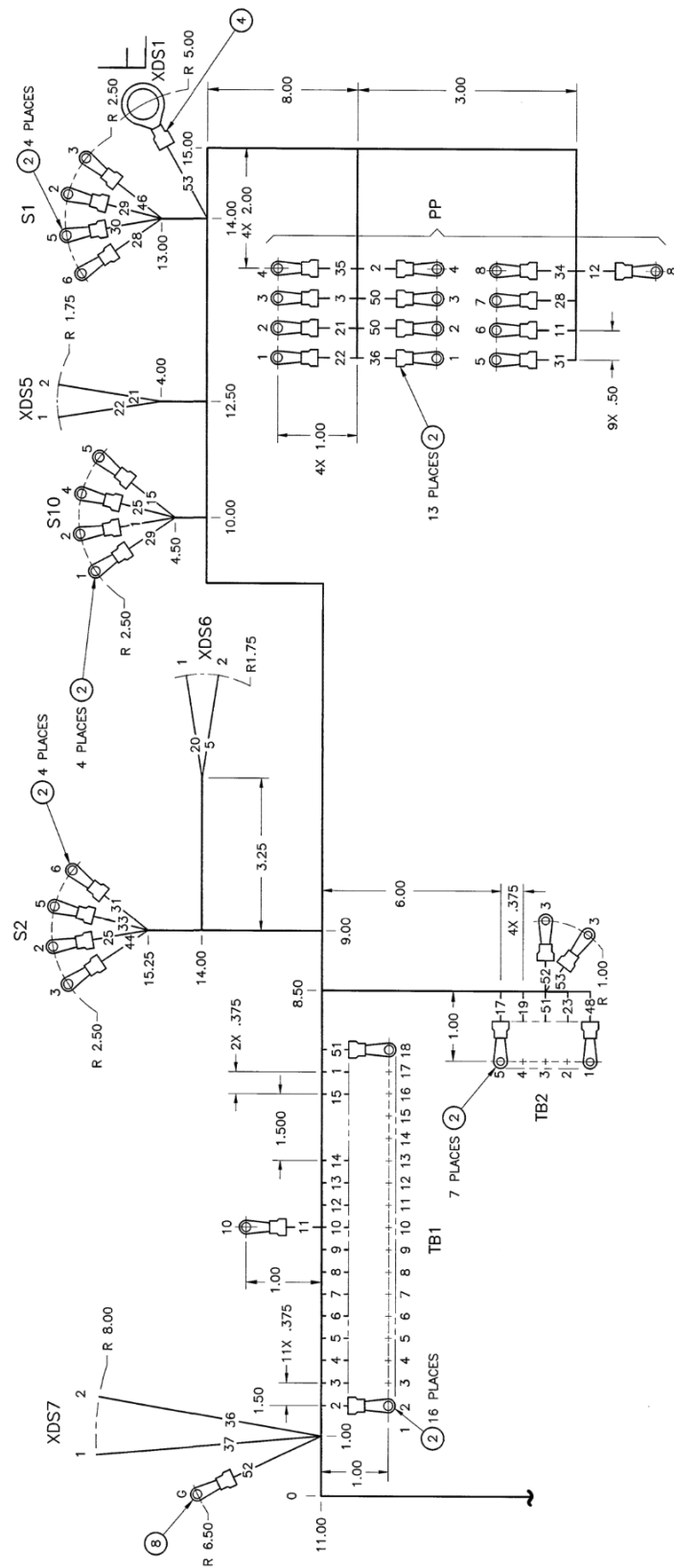


Figure 1. Switch Box Harness Assembly W9 (NEW) (Sheet 1 of 4).

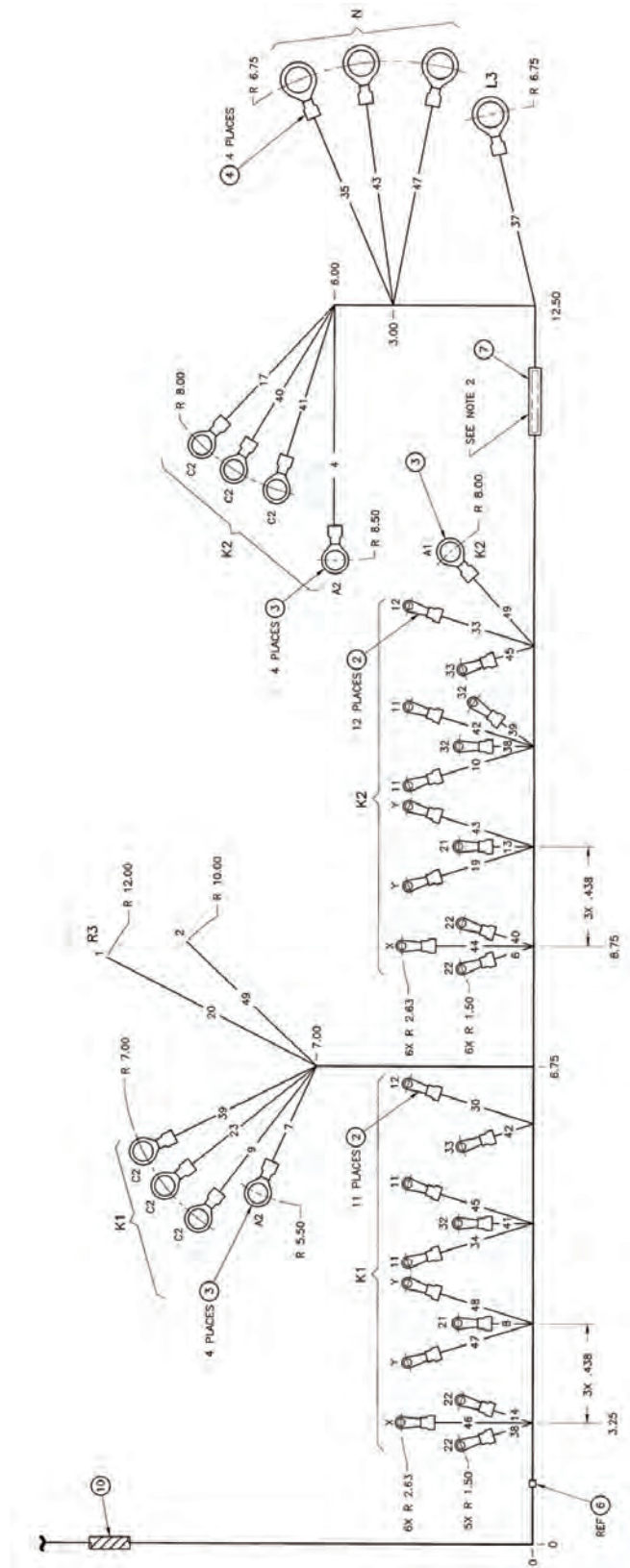


Figure 1. Switch Box Harness Assembly W9 (NEW) (Sheet 2 of 4).

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	M22759/16-16-9	AR	WIRE, ELECTRICAL, 16 AWG, WHITE	MIL-W-22759/16
2	MS25036-106	70	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .138 STUD SIZE	
3	MS25036-110	9	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .375 STUD SIZE	
4	MS25036-155	4	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .500 STUD SIZE	
5	Sn60Pb40	AR	SOLDER	J-STD-004/5/6
6	MS3367-4-9	AR	STRAP, TIEDOWN	
7	M23053/5-107-4	1	INSULATION SLEEVING, .375 ID X 1.50 L	SAE-AMS-I-23053/2
8	MS25036-108	1	TERMINAL LUG, CRIMP STYLE, INSULATED, 16-14 AWG TERMINAL SIZE, .190 STUD SIZE	
9	MS23053/5-105-4	104	INSULATION SLEEVING, .187 ID X L AS REQUIRED	SAE-AMS-I-23053/2

NOTES:

1. BUNDLE WIRE HARNESS AT EACH BREAKOUT AND AT 3.00 MAX INTERVALS USING TIEDOWN STRAP, FIND NO.6.
2. HOT STAMP "97403-13229E5831" IN ACCORDANCE WITH MIL-M-60903 ON SLEEVING FIND NO. 3.
3. EACH WIRE SHALL BE IDENTIFIED BY HOT STAMPING ADDRESS DESIGNATIONS USING .09-.16 HIGH BLACK CHARACTERS ON INSULATION SLEEVING, FIND NO.9, IN ACCORDANCE WITH MIL-M-60903. ATTACH WITHIN TWO INCHES OF BOTH END TERMINATIONS. APPROPRIATE ADDRESS SHALL CONSIST OF THE FROM TERMINATION, A DOUBLE HEADED ARROW AND THE TO TERMINATION.
4. STRIP AND TIN WIRES IN ACCORDANCE WITH MIL-STD-2000, USING SOLDER, FIND NO. 5.
5. CRIMPED CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.

Figure 1. Switch Box Harness Assembly W9 (NEW) (Sheet 3 of 4).

WIRE LIST

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
1	TB1-17	2	S10-2	2	1
2	TB1-2	2	PP-4	2	1
3	TB1-3	2	PP-3	2	1
4	TB1-4	2	K2-C2	3	1
5	TB1-5	2	XDS6-2		1
6	TB1-6	2	K2-22	2	1
7	TB1-7	2	K1-A2	3	1
8	TB1-8	2	K1-21	2	1
9	TB1-9	2	K1-C2	3	1
10	TB1-10	2	K2-11	2	1
11	TB1-10	2	PP-6	2	1
12	TB1-11	2	PP-8	2	1
13	TB1-12	2	K2-21	2	1
14	TB1-13	2	K1-22	2	1
15	TB1-16	2	S10-5	2	1
16	-	-	-	-	-
17	K2-5	-	K2-A2	3	1
18	-	-	-	-	-
19	TB2-4	2	K2-Y	2	1
20	XDS6-1	-	R3-1	-	1
21	XDS5-2	-	PP-2	2	1
22	XDS5-1	-	PP-2	2	1
23	TB2-2	2	K1-A2	3	1
24	-	-	-	-	-
25	S2-2	2	S10-4	2	1
26	-	-	-	-	-

WIRE NO.	TERMINATION		TERMINATION		WIRE FIND NO.
	FROM	FIND NO.	TO	FIND NO.	
27	-	-	-	-	-
28	S1-6	2	PP-7	2	1
29	S1-2	2	S10-1	2	1
30	S1-5	2	K1-12	2	1
31	S2-6	2	PP-5	2	1
32	-	-	-	-	-
33	S2-5	2	K2-12	2	1
34	K1-11	2	PP-8	2	1
35	PP-4	2	L0	4	1
36	XDS7-2	-	PP-1	2	1
37	XDS7-1	-	L3	2	1
38	K1-22	2	K2-32	2	1
39	K2-32	2	K1-A2	3	1
40	K2-22	2	K2-A2	3	1
41	K1-32	2	K2-A2	3	1
42	K1-33	2	K2-11	2	1
43	K2-Y	2	L0	4	1
44	K2-X	2	S2-3	2	1
45	K2-33	2	K1-11	2	1
46	K1-X	2	S1-3	2	1
47	K1-Y	2	L0	4	1
48	K1-Y	2	TB2-1	2	1
49	K2-A1	3	R3-2	-	1
50	PP-2	2	PP-3	2	1
51	TB1-18	2	TB2-3	2	1
52	G	8	TB2-3	2	1
53	XDS1-2	4	TB2-3	1	

Figure 1. Switch Box Harness Assembly W9 (NEW) (Sheet 4 of 4).

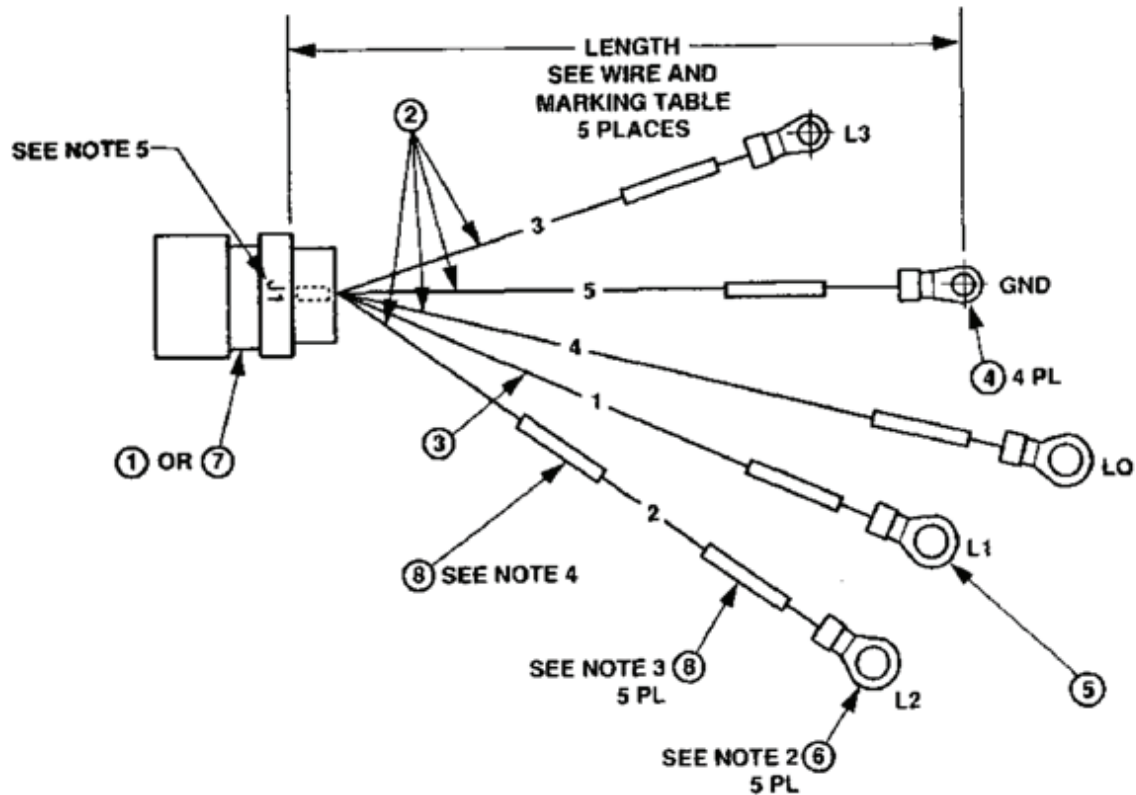
END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
 OUTPUT CONNECTOR HARNESS ASSEMBLY W10

P/N 13229E5832

**NOTES:**

1. CRIMP CONNECTIONS SHALL BE IN ACCORDANCE WITH MIL-E-45782.
2. INSTALL INSULATION SLEEVING, FIND NO. 6, OVER TERMINALS, FIND NO. 4 AND 5, AND HEAT SHRINK TO A FIRM FIT.
3. HOT STAMP EACH WIRE, WITHIN 2.50 +/- .12 OF TERMINAL, WITH MARKINGS SPECIFIED IN TABULATION. MARKINGS SHALL BE IN ACCORDANCE WITH MIL-M-60903, ON SLEEVING, FIND NO. 8.
4. HOT STAMP "W10" AND "97403-13229E5832-" WITH APPROPRIATE DASH NO. IN ACCORDANCE WITH MIL-M-60903, ON SLEEVING, FIND NO. 8. APPLY SINGLE MARKING APPROXIMATELY CENTERED ON ANY ONE WIRE.
5. MARK REFERENCE DESIGNATION IN .12 MIN. HIGH CHARACTERS IN ACCORDANCE WITH MIL-STD-130, METHOD OPTIONAL.

Figure 1. Output Connector Harness Assembly W10 (Sheet 1 of 2).

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED		DESCRIPTION	SPECIFICATION
		-1	-2		
1	MS90555C32413S	1	~	CONNECTOR, RECEPTACLE ELECTRICAL	
2	M5086/2-4-9	AR	AR	WIRE, ELECTRICAL, 4 AWG	SAE-AS50861/2
3	M5086/2-6-9	AR	AR	WIRE, ELECTRICAL, 6 AWG	SAE-AS50861/2
4	MS20659-145	4	4	TERMINAL, 4 AWG, .50 STUD SIZE	
5	MS20659-143	1	1	TERMINAL, 6 AWG, .50 STUD SIZE	
6	M23053/5-108-9	5	5	INSULATION SLEEVING, HEAT SHRINKABLE, .50 MIN ID AS SUPPLIED, 1.00 L	SAE-AMS-I-23053/2
7	MS90555C32413SY	1	~	CONNECTOR, RECEPTACLE ELECTRICAL	
8	M23053/5-108-4	6	6	INSULATION SLEEVING, HEAT SHRINKABLE, .50 MIN ID AS SUPPLIED, L AS REQUIRED	SAE-AMS-I-23053/2

WIRING AND MARKING TABLE

WIRE NO.	FROM	MARKING	LENGTH +.50 -.00
1	J1-A	L1	18.00
2	J1-B	L2	20.00
3	J1-C	L3	22.00
4	J1-N	L0	22.00
5	J1-G	GND	26.00

APPLICATION CODE

DASH NO.	APPLICATION
-1	FOR 60 Hz SYSTEMS
-2	FOR 400 Hz SYSTEMS

Figure 1. Output Connector Harness Assembly W10 (Sheet 2 of 2).

END OF TASK

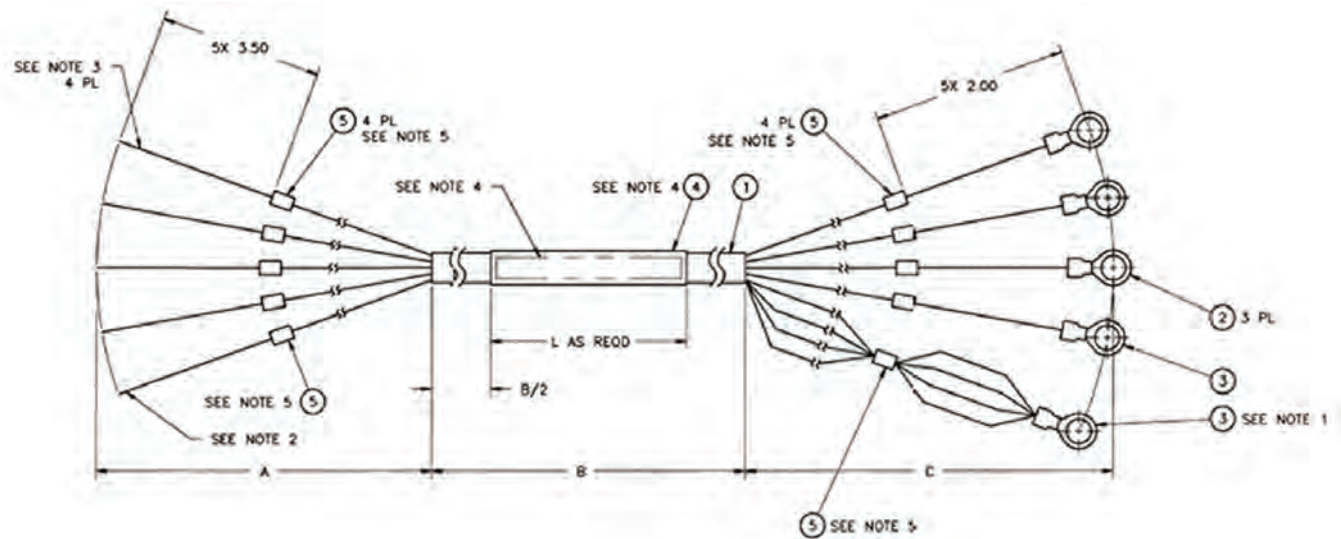
END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

CABLE ASSEMBLY W1 AND W2

P/N 13229E6795



PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	13230E6407-3	AR	CABLE, POWER	MIL-C-3432
2	95-8162-42	3	TERMINAL LUG, 4 AWG, .375 STUD SIZE	
3	13229E5706-10	2	TERMINAL LUG, 4 AWG, .500 STUD SIZE	
4	88-20541-22	1	INSULATION SLEEVING, HEAT SHRINKABLE, BLK	SAE-AMS-I-23053/2
5	88-20541-16	10	INSULATION SLEEVING, HEAT SHRINKABLE, WHT	SAE-AMS-I-23053/2

Figure 1. Cable Assembly W1 and W2 (Sheet 1 of 3).

NOTES:

1. REMOVE BRAID FROM FOUR GROUND WIRES (12 AWG). TWIST TOGETHER AND INSTALL TERMINAL LUG, FIND NO. 4, AS SHOWN. TERMINAL SHALL BE INSTALLED IN ACCORDANCE WITH MIL-STD-454, REQUIREMENT 19.
2. AT PIGTAIL END OF CABLE, THE FOUR 12 AWG GROUNDING CONDUCTORS SHALL BE TWISTED TOGETHER, STARTING AT THE JACKET. CONDUCTORS SHALL BE SOLDER COATED FOR A LENGTH OF .25 FROM END USING SOLDER, FIND NO. 8.
3. AT PIGTAIL END OF CABLE, EACH INSULATED CONDUCTOR SHALL BE STRIPPED 1.25 FROM END AND HAVE THEIR INDIVIDUAL STRANDS TWISTED TOGETHER. SOLDER COAT FOR A LENGTH OF .12 FROM END USING SOLDER, FIND NO. 8.
4. INSULATION COLORS, IN ACCORDANCE WITH WIRE LIST, SHALL BE INCLUDED AS PART OF THE ORDERING DATA.
5. HOT STAMP "97403-13229E6795-" WITH APPROPRIATE DASH NO., AND "W-" IN .23-.39 HIGH CHARACTERS ON INSULATION SLEEVING, FIND NO. 5, IN ACCORDANCE WITH MIL-M-60903.
6. HOT STAMP WITH TERMINAL DESIGNATION, AS SHOWN ON WIRE LIST, USING .12-.22 HIGH CHARACTERS, IN TWO PLACES APPROXIMATELY 180° APART ON INSULATION SLEEVING, FIND NO. 6 AND 7, IN ACCORDANCE WITH MIL-M-60903.

WIRE LIST - AN/MJQ-35

DASH NO.	WIRE	TERMINATION		TERMINATION		WIRE FIND NO.	DIMENSION			CABLE REF DES
		FROM	FIND NO.	TO	FIND NO.		A	B	C	
-1	BLACK	G1-L1	-	K1-A2	2	1	23.50	87.00	3.50	W1
	RED	G1-L2	-	K1-B2	2	1	19.50	87.00	3.00	
	BLUE	G1-L3	-	K1-C2	2	1	15.50	87.00	3.50	
	WHITE	G1-N	-	N	3	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	87.00	18.00	
-2	BLACK	G2-L1	-	K2-A2	2	1	23.50	87.00	3.50	W2
	RED	G2-L2	-	K2-B2	2	1	19.50	87.00	3.00	
	BLUE	G2-L3	-	K2-C2	2	1	15.50	87.00	3.50	
	WHITE	G2-N	-	N	3	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	
	GREEN	G2-GND	-	GND	4	1	17.50	87.00	18.00	

Figure 1. Cable Assembly W1 and W2 (Sheet 2 of 3).

WIRE LIST - AN/MJQ-35A

DASH NO.	WIRE	TERMINATION		TERMINATION		WIRE FIND NO.	DIMENSION			CABLE REF DES
		FROM	FIND NO.	TO	FIND NO.		A	B	C	
-3	BLACK	G1-L1	-	K1-A2	2	1	23.50	180.00	3.50	W2
	RED	G1-L2	-	K1-B2	2	1	19.50	180.00	3.00	
	BLUE	G1-L3	-	K1-C2	2	1	15.50	180.00	3.50	
	WHITE	G1-N	-	N	3	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	
	GREEN	G1-GND	-	GND	4	1	17.50	180.00	18.00	

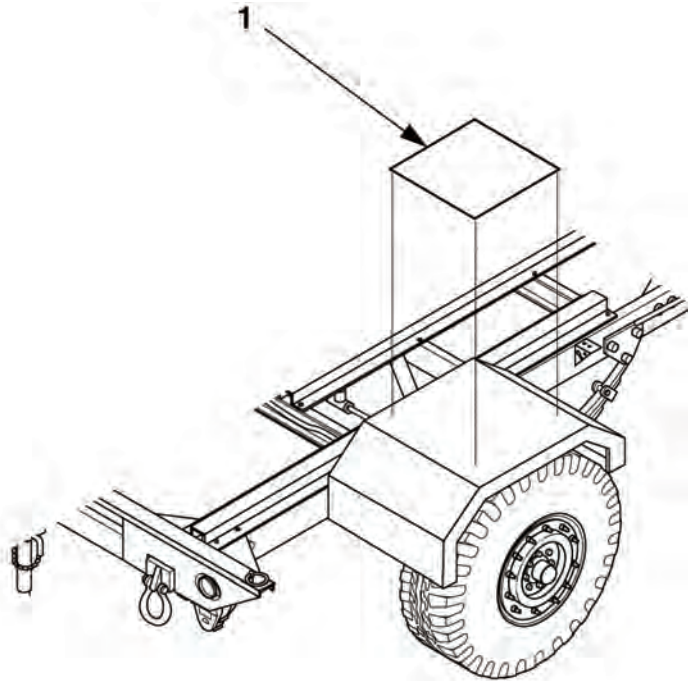
Figure 1. Cable Assembly W1 and W2 (Sheet 3 of 3).**END OF TASK****END OF WORK PACKAGE**

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

DECK COVERING

P/N 22806-000-00



NOTES:

1. Remove old deck covering and clean area.
2. Cut deck covering material (1) to desired length.
3. Remove protective cover from pressure-sensitive adhesive backing and apply to area to be covered.

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	22806-000-00	AR	Deck Covering, Lightweight, Nonslip	MIL-D-17951E

Figure 1. Deck Covering.

END OF TASK

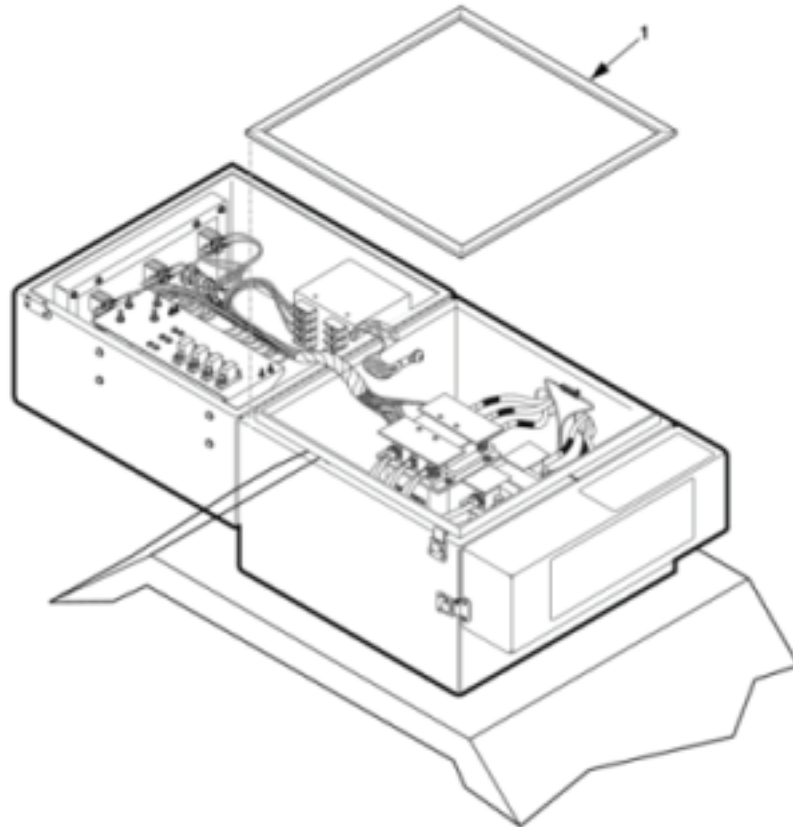
END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

SWITCH BOX GASKET

P/N 2B2B2C1F2

**NOTES:**

1. Remove damaged gasket material from switch box and clean thoroughly.
2. Measure switch box for required length and cut rubber gasket material (1).
3. Apply Type II adhesive (WP 0114, Item 1) to switch box and install gasket material.

PARTS LIST

FIND NO.	PART NO.	QUANTITY REQUIRED	DESCRIPTION	SPECIFICATION
1	2B2B2C1F2	AR	Strip, Rubber	ASTM D1056

Figure 1. Switch Box Gasket.

END OF TASK

END OF WORK PACKAGE

FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

TORQUE LIMITS

CAUTION

If replacement capscrews are of a higher grade than originally supplied, use torque specifications for that placement. This will prevent equipment damage due to over torquing.

NOTE

Always use the torque values listed above when specific torque values are not available.

Table 1. Torque Limits.

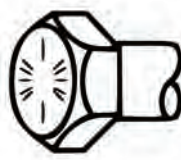
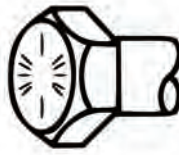
SAE Grade Number	1 or 2		5		6 or 7		8		
Quality of Material	Indeterminate		Minimum Commercial		Medium Commercial		Best Commercial		
Capscrew Head Markings									
NOTE Head marking may vary with different manufacturers.									
Capscrew Body Size		Torque		Torque		Torque		Torque	
(inches)	(Thread)	Ft Lb	(N.m)	Ft Lb	(N.m)	Ft Lb	(N.m)	Ft Lb	(N.m)
1/4	20	5	(7)	8	(11)	10	(14)	12	(16)
	28	6	(8)	10	(14)			14	(19)
5/16	18	11	(15)	17	(23)	19	(26)	24	(33)
	24	13	(18)	19	(16)			27	(37)
3/8	16	18	(24)	31	(42)	34	(46)	44	(60)
	24	20	(27)	35	(47)			49	(66)
7/16	14	28	(38)	49	(66)	55	(75)	70	(95)
	20	30	(41)	55	(75)			78	(106)
1/2	13	39	(53)	75	(102)	85	(115)	105	(142)
	20	41	(56)	85	(115)			120	(163)
9/16	12	51	(69)	110	(149)	120	(163)	155	(210)
	18	55	(75)	120	(163)			170	(231)
5/8	11	83	(113)	150	(203)	167	(226)	210	(285)

Table 1. Torque Limits. - Continued

SAE Grade Number	1 or 2	5	6 or 7	8					
Quality of Material	Indeterminate	Minimum Commercial	Medium Commercial	Best Commercial					
Capscrew Head Markings									
NOTE Head marking may vary with different manufacturers.									
Capscrew Body Size		Torque		Torque		Torque		Torque	
(inches)	(Thread)	Ft Lb	(N.m)	Ft Lb	(N.m)	Ft Lb	(N.m)	Ft Lb	(N.m)
	18	95	(129)	170	(231)			240	(325)
3/4	10	105	(142)	270	(366)	280	(380)	375	(508)
	16	115	(156)	295	(400)			420	(569)
7/8	9	160	(217)	395	(536)	440	(597)	605	(820)
	14	175	(237)	435	(590)			675	(915)
1	8	235	(319)	590	(800)	660	(895)	910	(1234)
	14	250	(339)	660	(895)			990	(1342)

END OF WORK PACKAGE

CHAPTER 7

OPERATOR AND FIELD PARTS INFORMATION

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 7

PARTS INFORMATION

WORK PACKAGE INDEX

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GROUP 01 Generator Set - Power Unit.....	0072
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GROUP 02 Electrical System - Cable Assembly (OLD).....	0074
GROUP 02 Electrical System - Cable Assembly (NEW).....	0075
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GROUP 02 Electrical System - Switch Box Installation (NEW).....	0077
GROUP 02 Electrical System - Relay Board Harness Assembly.....	0078
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GROUP 04 Trailer Assembly - 1 ½ Ton Trailer, AN/MJQ-36 Fender.....	0100
GROUP 04 Trailer Assembly - Fenders, 1 Ton Trailer, PU-797.....	0101

<u>Title</u>	<u>WP Sequence No.</u>
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GROUP 04 Trailer Assembly - Power Plant/Power Unit Trailer Chassis Assembly.....	0104
GROUP 05 Bulk Material.....	0105
Special Tools List	0106
National Stock Number (NSN) Index.....	0107
Part Number Index	0108

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN REPAIR PARTS AND SPECIAL TOOLS LIST (RPSTL) INTRODUCTION

INTRODUCTION

SCOPE

This RPSTL lists and authorizes spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE); and other special support equipment required for performance of Operator and Field maintenance of the Power Plant/Power Unit. It authorizes the requisitioning, issue, and disposition of spares, repair parts, and special tools as indicated by the source, maintenance, and recoverability (SMR) codes.

GENERAL

In addition to the Introduction work package, this RPSTL is divided into the following work packages.

1. **Repair Parts List Work Packages.** Work packages containing lists of spares and repair parts authorized by this RPSTL for use in the performance of maintenance. These work packages also include parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in ascending alphanumeric sequence, with the parts in each group listed in ascending figure and item number sequence. Sending units, brackets, filters, and bolts are listed with the component they mount on. Bulk materials are listed by item name in FIG. BULK at the end of the work packages. Repair parts kits are listed separately in their own functional group and work package. Repair parts for reparable special tools are also listed in a separate work package. Items listed are shown on the associated illustrations.
2. **Special Tools List Work Packages.** Work packages containing lists of special tools, special TMDE, and special support equipment authorized by this RPSTL (as indicated by Basis of Issue (BOI) information in the DESCRIPTION AND USABLE ON CODE (UOC) column). Tools that are components of common tool sets and/or Class VII are not listed.
3. **Cross-Reference Indexes Work Packages.** There are 2 crossreference indexes work packages in this RPSTL: the National Stock Number (NSN) Index work package, and the Part Number (P/N) Index work package. The National Stock Number Index work package refers you to the figure and item number. The Part Number Index work package refers you to the figure and item number.

EXPLANATION OF COLUMNS IN THE REPAIR PARTS LIST AND SPECIAL TOOLS LIST WORK PACKAGES

ITEM NO. (Column (1)). Indicates the number used to identify items called out in the illustration.

SMR CODE (Column (2)). The SMR code containing supply/requisitioning information, maintenance level authorization criteria, and disposition instruction, as shown in the following breakout. This entry may be subdivided into 4 subentries, one for each service.

Table 1. SMR Code Explanation.

<u>Source Code</u>		<u>Maintenance Code</u>	<u>Recoverability Code</u>
<u>XX</u>		<u>XX</u>	<u>X</u>
1st two positions:	3rd position:	4th position:	5th position:
How to get an item.	Who can install, replace, or use the item.	Who can do complete repair* on the item.	Who determines disposition action on unserviceable items.

*Complete Repair: Maintenance capacity, capability, and authority to perform all corrective maintenance tasks of the "Repair" function in a use/user environment in order to restore serviceability to a failed item.

Source Code. The source code tells you how you get an item needed for maintenance, repair, or overhaul of an end item/equipment. Explanations of source codes follow:

Source Code**Application/Explanation**

PA
PB
PC
PD
PE
PF
PG
PH
PR
PZ

NOTE

Items coded PC are subject to deterioration.

Stock items; use the applicable NSN to requisition/request items with these source codes. They are authorized to the level indicated by the code entered in the third position of the SMR code.

KD
KF
KB

Items with these codes are not to be requested/requisitioned individually. They are part of a kit which is authorized to the maintenance level indicated in the third position of the SMR code. The complete kit must be requisitioned and applied.

MF-Made at field
MH-Made at below depot/sustainment level
ML-Made at SRA
MD-Made at depot
MG-Navy only

Items with these codes are not to be requisitioned/requested individually. They must be made from bulk material which is identified by the part number in the DESCRIPTION AND USABLE ON CODE (UOC) column and listed in the bulk material group work package of the RPSTL. If the item is authorized to you by the third position code of the SMR code, but the source code indicates it is made at higher level, order the item from the higher level of maintenance.

AF-Assembled by field
AH-Assembled by below depot sustainment level
AL-Assembled by SRA
AD-Assembled by depot
AG-Navy only

Items with these codes are not to be requested/requisitioned individually. The parts that make up the assembled item must be requisitioned or fabricated and assembled at the level of maintenance indicated by the source code. If the third position of the SMR code authorizes you to replace the item, but the source code indicates the item is assembled at a higher level, order the item from the higher level of maintenance.

XA
XB
XC
XD

Do not requisition an "XA" coded item. Order the next higher assembly. (Refer to NOTE below.)

If an item is not available from salvage, order it using the CAGEC and part number.

Installation drawings, diagrams, instruction sheets, field service drawings; identified by manufacturer's part number.

Item is not stocked. Order an XD-coded item through local purchase or normal supply channels using the CAGEC and part number given, if no NSN is available.

NOTE

Cannibalization or controlled exchange, when authorized, may be used as a source of supply for items with the above source codes except for those items source coded "XA" or those aircraft support items restricted by requirements of AR 750-1.

Maintenance Code. Maintenance codes tell you the level(s) of maintenance authorized to use and repair support items. The maintenance codes are entered in the third and fourth positions of the SMR code as follows:

Third Position. The maintenance code entered in the third position tells you the lowest maintenance level authorized to remove, replace, and use an item. The maintenance code entered in the third position will indicate authorization to the following levels of maintenance:

Maintenance Code **Application/Explanation**

F -	Field maintenance can remove, replace, and use the item.
H -	Below Depot Sustainment maintenance can remove, replace, and use the item.
L -	Specialized repair activity can remove, replace, and use the item.
G -	Afloat and ashore intermediate maintenance can remove, replace, and use the item (Navy only)
K -	Contractor facility can remove, replace, and use the item.
Z -	Item is not authorized to be removed, replaced, or used at any maintenance level
D -	Depot can remove, replace, and use the item.

*NOTE - Army may use C in the third position. However, for joint service publications, Army will use O.

Fourth Position. The maintenance code entered in the fourth position tells you whether or not the item is to be repaired and identifies the lowest maintenance level with the capability to do complete repair (perform all authorized repair functions).

NOTE

Some limited repair may be done on the item at a lower level of maintenance, if authorized by the Maintenance Allocation Chart (MAC) and SMR codes.

<u>Maintenance Code</u>	<u>Application/Explanation</u>
F -	Field is the lowest level that can do complete repair of the item.
H -	Below Depot Sustainment is the lowest level that can do complete repair of the item.
L -	Specialized repair activity is the lowest level that can do complete repair of the item.
D -	Depot is the lowest level that can do complete repair of the item.
G -	Both afloat and ashore intermediate levels are capable of complete repair of item. (Navy only)
K -	Complete repair is done at contractor facility
Z -	Nonreparable. No repair is authorized.
B -	No repair is authorized. No parts or special tools are authorized for maintenance of "B" coded item. However, the item may be reconditioned by adjusting, lubricating, etc., at the user level.

Recoverability Code. Recoverability codes are assigned to items to indicate the disposition action on unserviceable items. The recoverability code is shown in the fifth position of the SMR code as follows:

<u>Recoverability Code</u>	<u>Application/Explanation</u>
Z -	Nonreparable item. When unserviceable, condemn and dispose of the item at the level of maintenance shown in the third position of the SMR code.
F -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the field level.
H -	Reparable item. When uneconomically repairable, condemn and dispose of the item at the below depot sustainment level.
D -	Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal of item are not authorized below depot level.
L -	Reparable item. Condemnation and disposal not authorized below Specialized Repair Activity (SRA).
A -	Item requires special handling or condemnation procedures because of specific reasons (such as precious metal content, high dollar value, critical material, or hazardous material). Refer to appropriate manuals/directives for specific instructions.
G -	Field level repairable item. Condemn and dispose at either afloat or ashore intermediate levels. (Navy only)
K -	Reparable item. Condemnation and disposal to be performed at contractor facility.

NSN (Column (3)). The NSN for the item is listed in this column.

CAGEC (Column (4)). The Commercial and Government Entity Code (CAGEC) is a five-digit code which is used to identify the manufacturer, distributor, or Government agency/activity that supplies the item.

PART NUMBER (Column (5)). Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications, standards, and inspection requirements to identify an item or range of items.

NOTE

When you use an NSN to requisition an item, the item you receive may have a different part number from the number listed.

DESCRIPTION AND USABLE ON CODE (UOC) (Column (6)). This column includes the following information:

1. The federal item name, and when required, a minimum description to identify the item.
2. Part numbers of bulk materials are referenced in this column in the line entry to be manufactured or fabricated.
3. Hardness Critical Item (HCI). A support item that provides the equipment with special protection from electromagnetic pulse (EMP) damage during a nuclear attack.
4. The statement END OF FIGURE appears just below the last item description in column (6) for a given figure in both the repair parts list and special tools list work packages.

QTY (Column (7)). The QTY (quantity per figure) column indicates the quantity of the item used in the breakout shown on the illustration/figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column instead of a quantity indicates that the quantity is variable and quantity may change from application to application.

EXPLANATION OF CROSS-REFERENCE INDEXES WORK PACKAGES FORMAT AND COLUMNS

1. National Stock Number (NSN) Index Work Package. NSN's in this index are listed in National Item Identification Number (NIIN) sequence.
 STOCK NUMBER Column. This column lists the NSN in NIIN sequence. The NIIN consists of the last nine digits of the NSN. When using this column to locate an item, ignore the first four digits of the NSN. However, the complete NSN should be used when ordering items by stock number.
 For example, if the NSN is 5385-01-574-1476, the NIIN is 01-574-1476.
 FIG. Column. This column lists the number of the figure where the item is identified/located. The figures are in numerical order in the repair parts list and special tools list work packages.
 ITEM Column. The item number identifies the item associated with the figure listed in the adjacent FIG. column. This item is also identified by the NSN listed on the same line.
2. Part Number (P/N) Index Work Package. Part numbers in this index are listed in ascending alphanumeric sequence (vertical arrangement of letter and number combinations which places the first letter or digit of each group in order A through Z, followed by the numbers 0 through 9 and each following letter or digit in like order).
 PART NUMBER Column. Indicates the part number assigned to the item.
 FIG. Column. This column lists the number of the figure where the item is identified/located in the repair parts list and special tools list work packages.
 ITEM Column. The item number is the number assigned to the item as it appears in the figure referenced in the adjacent figure number column.

SPECIAL INFORMATION

UOC. The UOC appears in the lower left corner of the Description Column heading. Usable on codes are shown as "UOC: ..." in the Description Column (justified left) on the first line under the applicable item/nomenclature. Uncoded items are applicable to all models. Identification of the UOCs used in the RPSTL are:

<u>Code</u>	<u>Used On</u>
YJD	AN/MJQ-35
YJC	AN/MJQ-35A
YJB	AN/MJQ-36
EVR	PU-797
YFS	PU-797A

Fabrication Instructions. Bulk materials required to manufacture items are listed in the bulk material functional group of this RPSTL. Part numbers for bulk material are also referenced in the Description Column of the line item entry for the item to be manufactured/fabricated.

Index Numbers. Items which have the word BULK in the figure column will have an index number shown in the item number column. This index number is a cross-reference between the NSN / Part Number (P/N) Index work packages and the bulk material list in the repair parts list work package.

Illustrations List. The illustrations in this RPSTL contain field authorized items. Illustrations published in (enter applicable TM number for the higher maintenance level RPSTL, e.g., for field, below depot sustainment, etc.) that contain field authorized items also appear in this RPSTL. The tabular list in the repair parts list work package contains only those parts coded "F" in the third position of the SMR code, therefore, there may be a break in the item number sequence.

HOW TO LOCATE REPAIR PARTS

1. When NSNs or Part Numbers Are Not Known.

First. Using the table of contents, determine the assembly group to which the item belongs. This is necessary since figures are prepared for assembly groups and subassembly groups, and lists are divided into the same groups.

Second. Find the figure covering the functional group or the subfunctional group to which the item belongs.

Third. Identify the item on the figure and note the number(s).

Fourth. Look in the repair parts list work packages for the figure and item numbers. The NSNs and part numbers are on the same line as the associated item numbers.

2. When NSN Is Known.

First. If you have the NSN, look in the STOCK NUMBER column of the NSN index work package. The NSN is arranged in NIIN sequence. Note the figure and item number next to the NSN.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

3. When Part Number Is Known.

First. If you have the part number and not the NSN, look in the PART NUMBER column of the part number index work package. Identify the figure and item number.

Second. Look up the item on the figure in the applicable repair parts list work package.

4. When Reference Designator Is Known.

First. If you know the reference designator, look in the REFERENCE DESIGNATOR column of the reference designator index work package. Note the figure and item number.

Second. Turn to the figure and locate the item number. Verify that the item is the one you are looking for.

ABBREVIATIONS

Not Applicable

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 01 GENERATOR SET - INSTALLATION

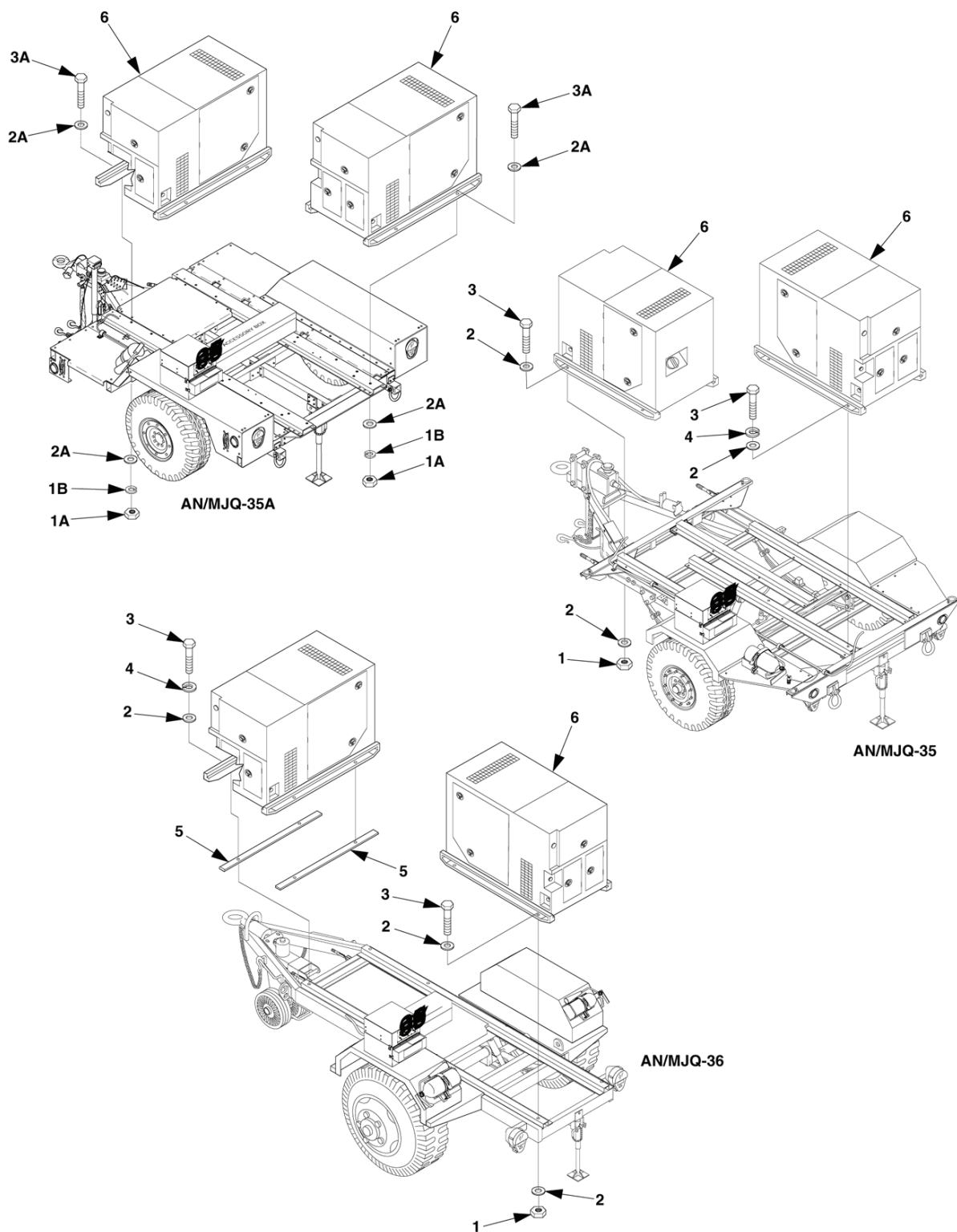


Figure 1. Generator Set Installation.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01 GENERATOR SET						
FIG. 1 GENERATOR SET INSTALLATION						
1	PAFZZ		96906	MS51922-33	NUT, SELF-LOCKING UOC: YJB, YJD	6
1A	PAFZZ		96906	MS51971-5	NUT, PLAIN, HEXAGON UOC: YJC	4
1B	PAFZZ		96906	MS35338-143	WASHER, LOCK UOC: YJC	4
2	PAFZZ		96906	MS51412-9	WASHER, FLAT UOC: YJB, YJD	14
2A	PAFZZ		96906	MS15795-817	WASHER, FLAT UOC: YJC	8
3	PAFZZ		80294	B1821BH050C175N	SCREW, CAP, HEXAGON UOC: YJB, YJD	8
3A	PAFZZ		96906	MS35307-414	SCREW, CAP, HEXAGON UOC: YJC	4
4	PAFZZ		96906	MS51415-9	WASHER, LOCK UOC: YJB, YJD	2
5	XDFZZ		97403	13229E9635	PLATE, SUPPORT UOC: YJC	2
6	PDFHH		30554	MEP 802A	GENERATOR SET, DIESEL UOC: YJB, YJC, YJD	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 01 GENERATOR SET - POWER UNIT

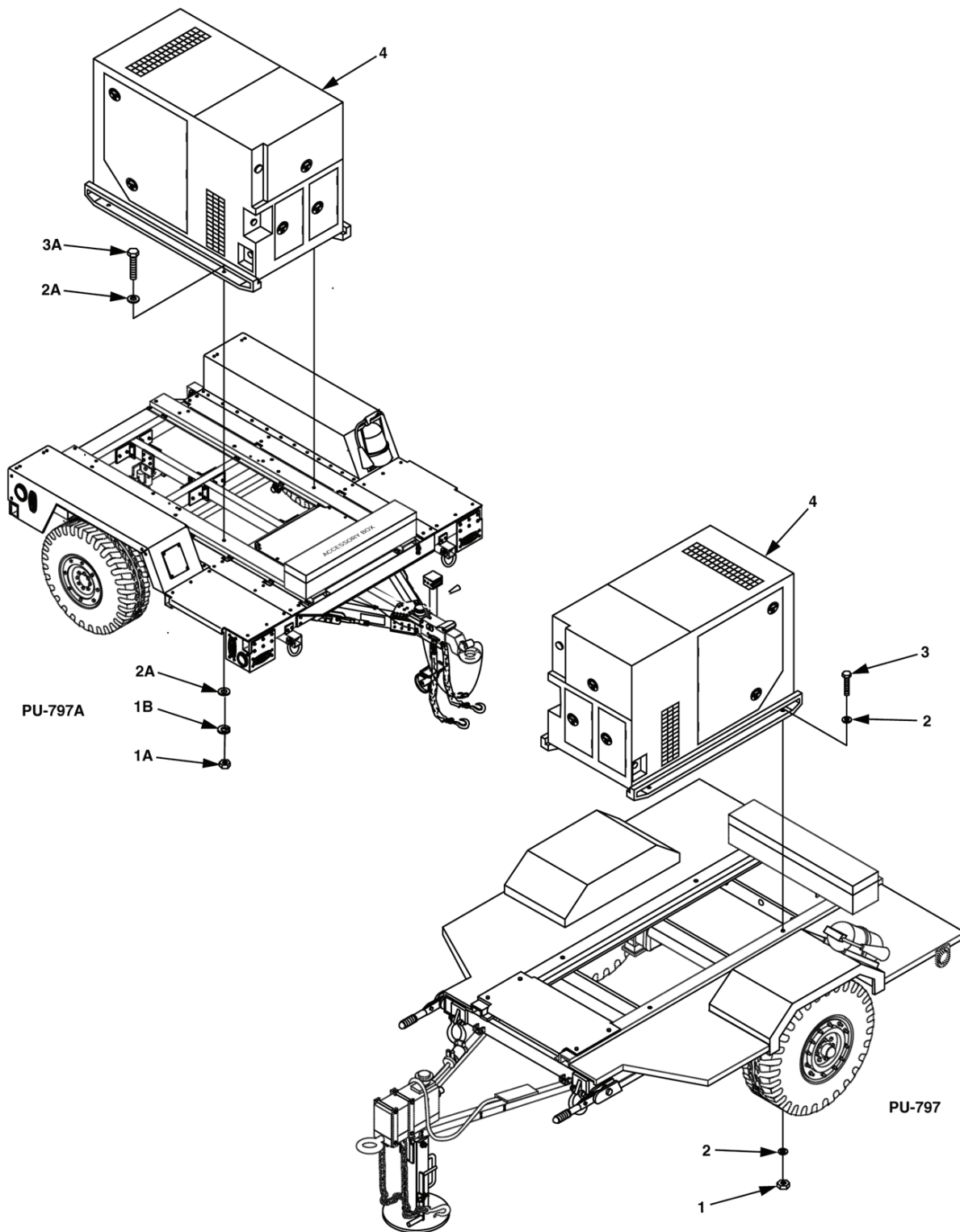


Figure 2. Generator Set, Power Unit.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 01 GENERATOR SET						
FIG. 2 GENERATOR SET, POWER UNIT						
1	PAFZZ		96906	MS51922-33	NUT, SELF-LOCKING, HEXAGON UOC: EVR	4
1A	PAFZZ		96906	MS51971-5	NUT, PLAIN, HEX HEAD UOC: YFS	4
1B	PAFZZ		96906	MS35338-143	WASHER, LOCK UOC: YFS	4
2	PAFZZ		96906	MS51412-9	WASHER, FLAT UOC: EVR	8
2A	PAFZZ		96906	MS15795-817	WASHER, FLAT UOC: YFS	8
3	PAFZZ		80204	B1821BH050C138N	SCREW, CAP, HEXAGON H UOC: EVR	4
3A	PAFZZ		96906	MS35307-414	SCREW, CAP, HEX HEAD UOC: YFS	4
4	PDFHH		30554	MEP 802A	GENERATOR SET, DIESEL UOC: EVR, YFS	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - POWER CABLES

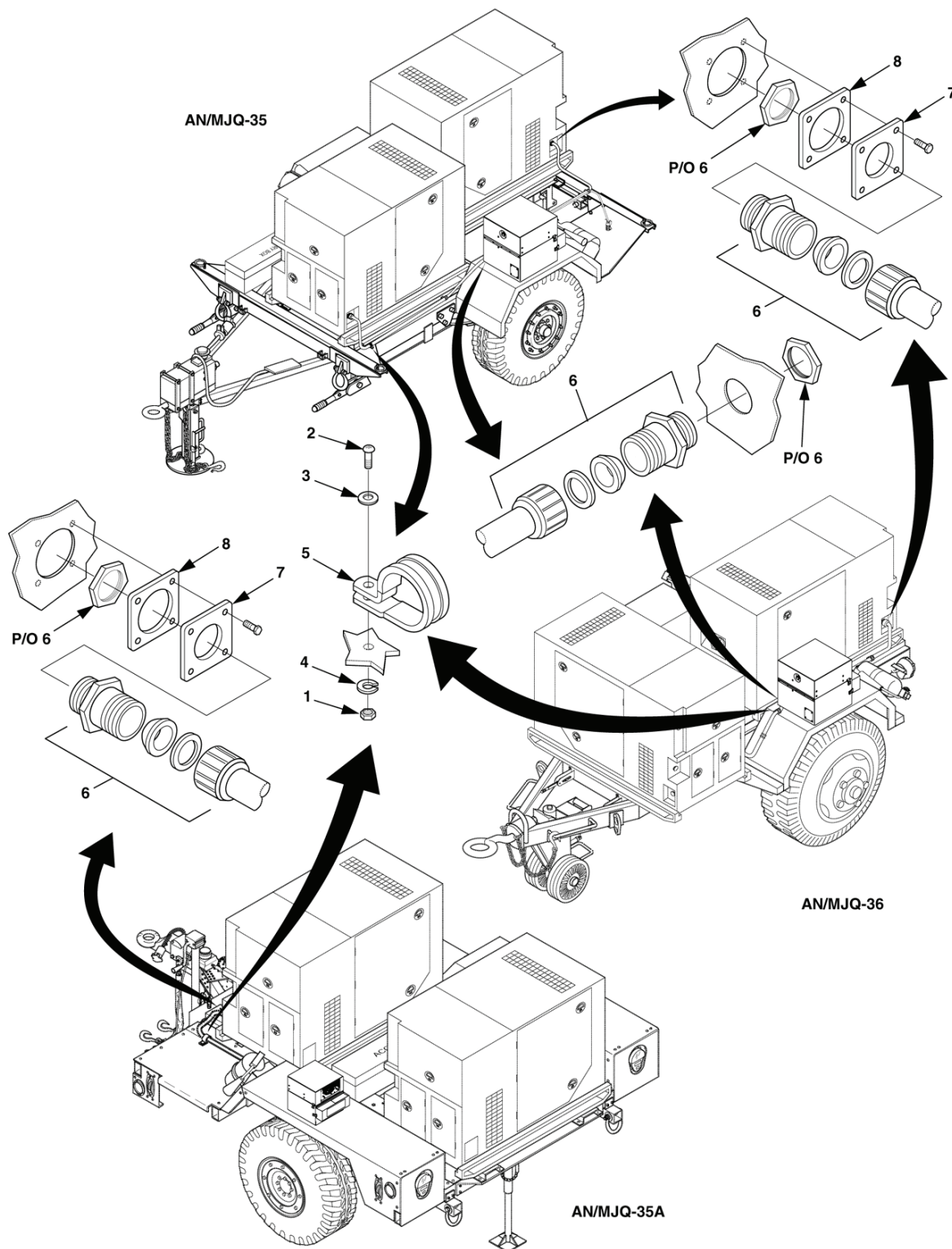


Figure 3. Power Cables.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 3 POWER CABLES						
1	PAFZZ		96906	MS35650-302	. NUT, PLAIN, HEXAGON UOC: YJB, YJD	4
1	PAFZZ		96906	MS35650-302	. NUT, PLAIN, HEXAGON UOC: YJC	2
2	PAFZZ		96906	MS35207-267	. SCREW, MACHINE UOC: YJB, YJD	4
2	PAFZZ		96906	MS35207-267	. SCREW, MACHINE UOC: YJC	2
3	PAFZZ		96906	MS51412-2	. WASHER, FLAT UOC: YJB, YJD	4
3	PAFZZ		96906	MS51412-2	. WASHER, FLAT UOC: YJC	2
4	PAFZZ		96906	MS35338-143	. WASHER, LOCK UOC: YJB, YJD	4
4	PAFZZ		96906	MS35338-143	. WASHER, LOCK UOC: YJC	4
5	PAFZZ		96906	MS21919WCG21	. CLAMP, LOOP UOC: YJB, YJD	4
5	PAFZZ		96906	MS21919WCG21	. CLAMP, LOOP UOC: YJC	4
6	PAFZZ		97403	13218E5149-8	. TUBE, STUFFING UOC: YJB, YJD, YJC	4
7	XDFZZ		97403	13229E5827	. PLATE, GEN OUTPUT UOC: YJB, YJD, YJC	2
8	PAFZZ		97403	M3BE510	. GASKET, RUBBER UOC: YJB, YJD, YJC	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - CABLE ASSEMBLY (OLD)

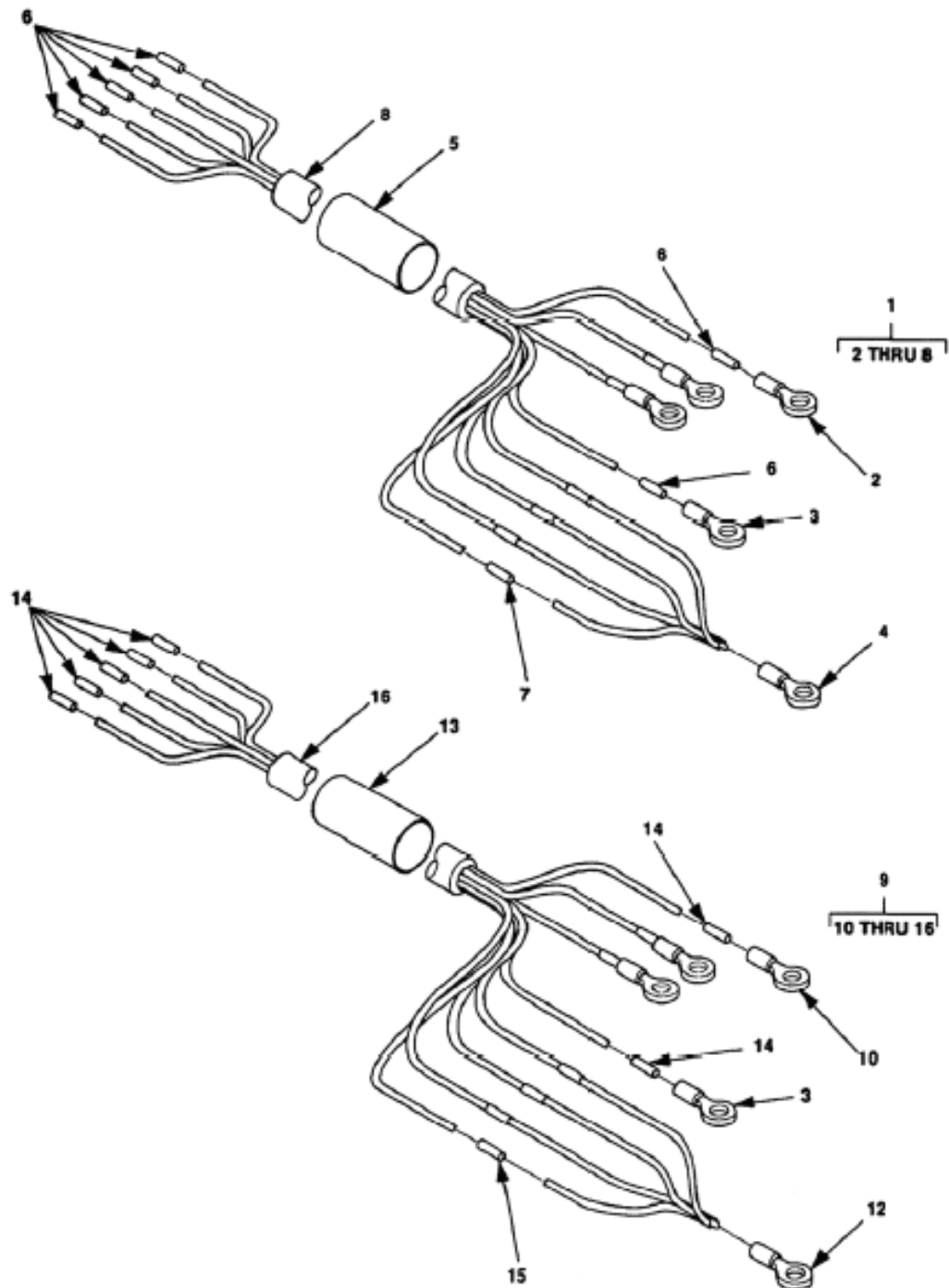


Figure 4. Cable Assembly (OLD).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 4 CABLE ASSEMBLY (OLD)						
1	AFFFF		97403	13229E5836-3	CABLE ASSEMBLY FRONT CABLE UOC: YJB.....	1
2	PAFZZ		96906	MS25036-125	TERMINAL, LUG UOC: YJB, YJC, YJD	3
3	PAFZZ		96906	MS20659-145	TERMINAL, LUG UOC: YJB, YJC, YJD	1
4	PAFZZ		96906	MS20659-143	TERMINAL LUG UOC: YJB, YJC, YJD	1
5	MFFZZ		19099	13229E5836-1-5	INSULATION SLEEVING MAKE FROM P/N M23053/5-111-0 (81349), 3 IN UOC: YJB, YJC, YJD	1
6	MFFZZ		19099	13229E5836-1-6	INSULATION SLEEVING MAKE FROM P/N M23053/5-107-9 (81349), AS REQUIRED UOC: YJB, YJC, YJD	9
7	MFFZZ		19099	13229E5836-1-7	INSULATION SLEEVING MAKE FROM P/N M23053/5-105-9 (81349), AS REQUIRED UOC: YJB, YJC, YJD	4
8	MFFZZ		19099	13229E5836-3-1	CABLE, POWER MAKE FROM P/N C0-04HDF (4/4-4/12R)1290 (81349), 83.5 IN. REQUIRED UOC: YJC	1
9	AFFFF		97403	13229E5836-4	CABLE ASSEMBLY, REAR CABLE UOC: YJB.....	1
10	PAFZZ		69606	MS25036-125	TERMINAL, LUG UOC: YJB, YJC, YJD	3
11	PAFZZ		96906	MS20659-145	TERMINAL, LUG UOC: YJB, YJC, YJD	1
12	PAFZZ		96906	MS20659-143	TERMINAL, LUG UOC: YJB, YJC, YJD	1
13	MFFZZ		19099	13229E5836-1-5	INSULATION SLEEVING MAKE FROM P/N M23053/5-111-0 (81349), 3 IN. REQUIRED UOC: YJB, YJC, YJD	1
14	MFFZZ		19099	13229E5836-1-6	INSULATION SLEEVING MAKE FROM P/N M23053/5-107-9 (81349), AS REQUIRED UOC: YJB, YJC, YJD	9
15	MFFZZ		19099	13229E5836-1-7	INSULATION SLEEVING MAKE FROM P/N M23053/5-105-9 (81349), AS REQUIRED UOC: YJB, YJC, YJD	4

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
16	MFFZZ		19099	13229E5836-4-1	CABLE, POWER MAKE FROM P/N C0-04HDF (4/4-4/12R)1290 (81349), 111 IN. REQUIRED UOC: YJD	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - CABLE ASSEMBLY (NEW)

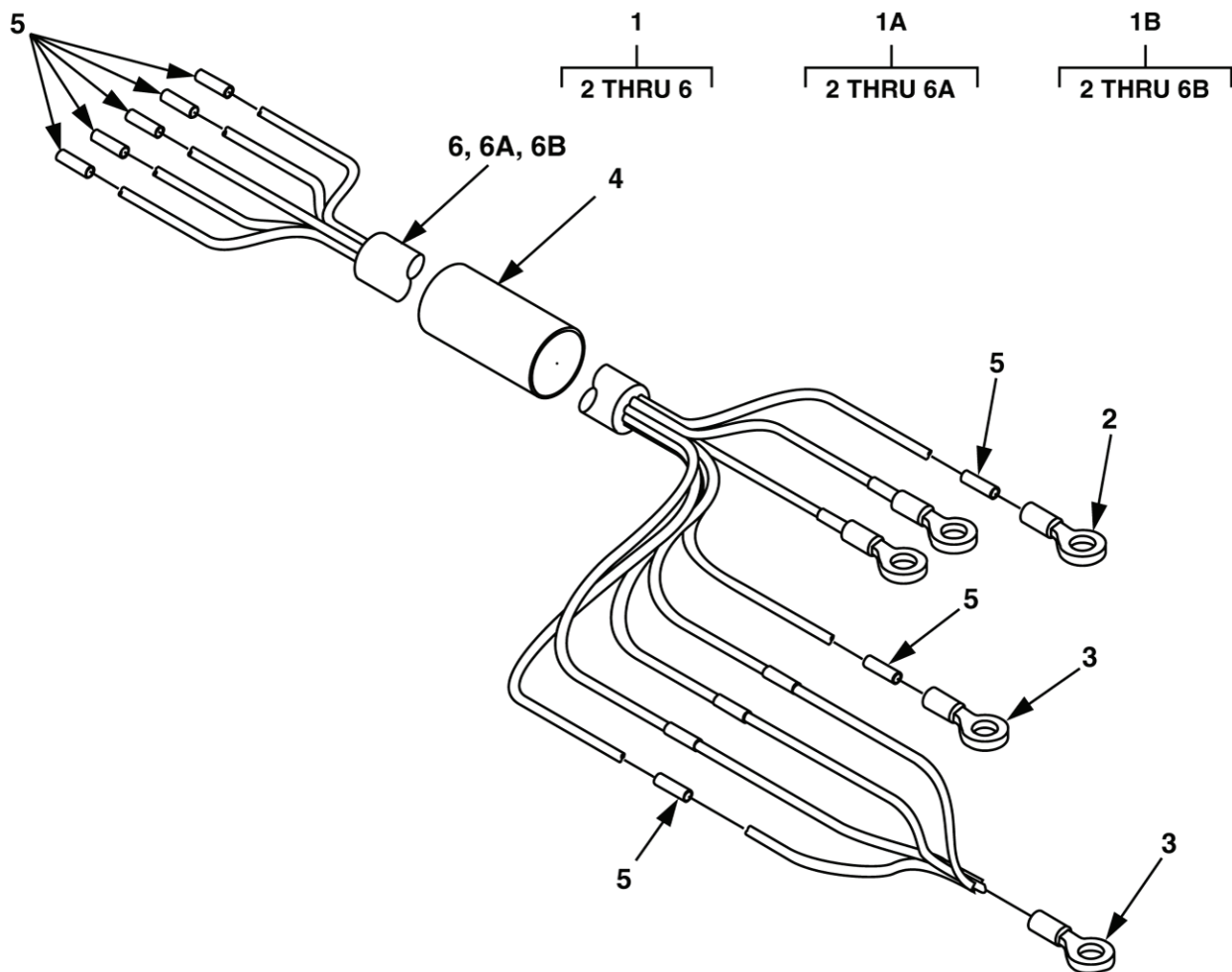


Figure 5. Cable Assembly (NEW).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 5 CABLE ASSEMBLY (NEW)						
1	AFFFF		97403	13229E6795-1	. CABLE ASSEMBLY FRONT CABLE UOC: YJD	1
1A	AFFFF		97403	13229E6795-2	. CABLE ASSEMBLY FRONT CABLE UOC: YJB.....	1
1B	AFFFF		97403	13229E6795-3	. CABLE ASSEMBLY FRONT CABLE UOC: YJC	1
2	PAFZZ		96906	MS25036-125	. . TERMINAL, LUG UOC: YJB, YJD, YJC	3
3	PAFZZ		96906	MS20659-145	. . TERMINAL, LUG UOC: YJB, YJD, YJC	2
4	MFFZZ		81349	M23053/5-111-0	. . INSULATION SLEEVING, 3 IN. REQUIRED UOC: YJB, YJD, YJC	1
5	MFFZZ		81349	M23053/5-107-9	. . INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	10
6	MFFZZ		81349	13230E6407-3	. . CABLE, POWER, 132.5 IN. REQUIRED UOC: YJC	1
6A	MFFZZ		81349	13230E6407-3	. . CABLE, POWER, 132.5 IN. REQUIRED UOC: YJD	1
6B	MFFZZ		81349	13230E6407-3	. . CABLE, POWER, 225.5 IN. REQUIRED UOC: YJB.....	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - SWITCH BOX INSTALLATION (OLD)

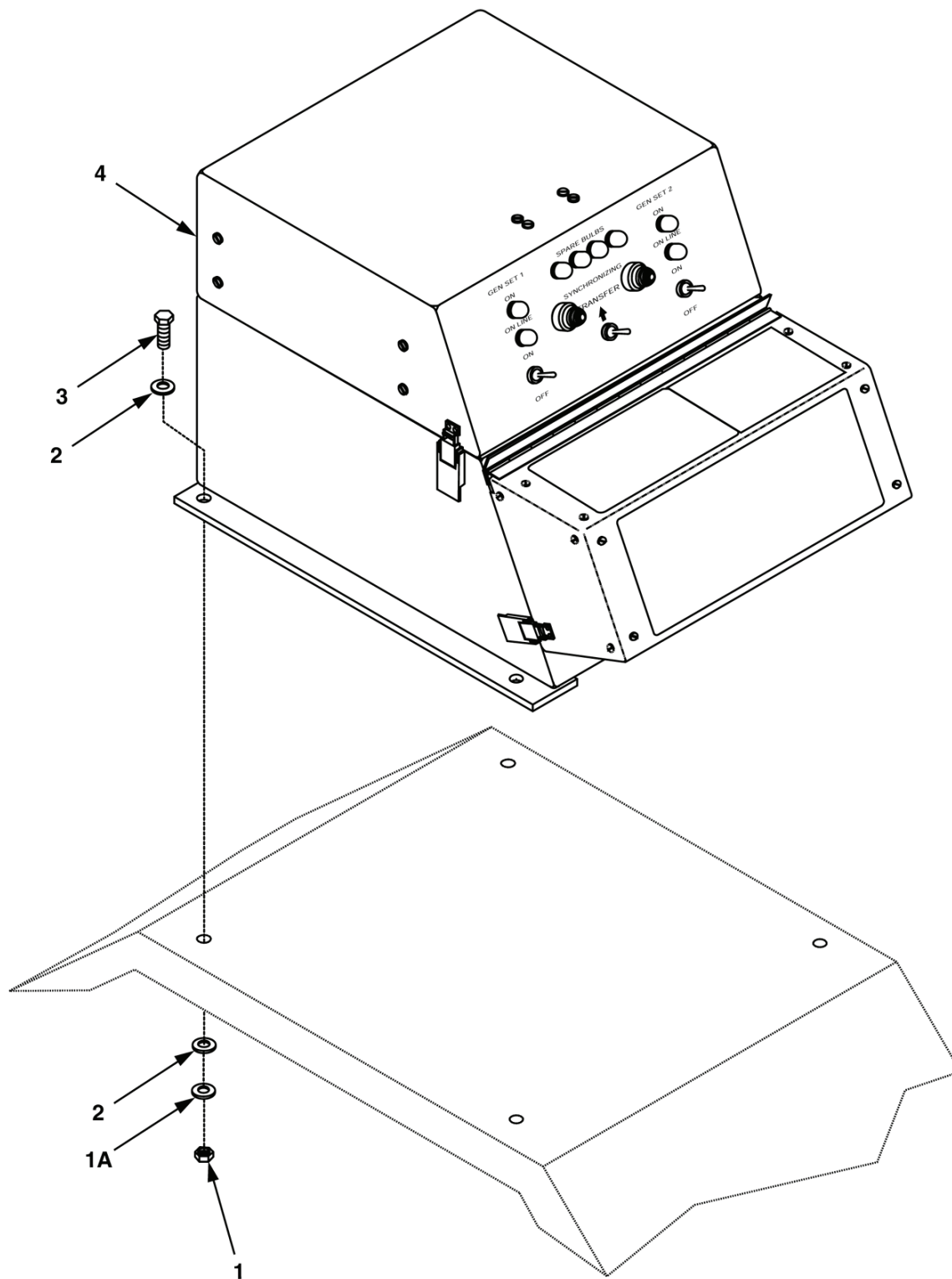


Figure 6. Switch Box Installation (OLD).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 6 SWITCH BOX INSTALLATION (OLD)						
1	PAFZZ		96906	MS51922-17	. NUT, SELF-LOCKING, HE UOC: YJB, YJC	4
1	PAFZZ		96906	MS35650-3314	. NUT, PLAIN, HEXAGON UOC: YJC	4
1A	PAFZZ		96906	MS35338-140	. WASHER, LOCK UOC: YJC	4
2	PAFZZ		96906	MS51412-7	. WASHER, FLAT UOC: YJB, YJD	4
2	PAFZZ		96906	MS15795-812	. WASHER, FLAT UOC: YJC	8
3	PAFZZ		80204	B1821BH038C150N	. SCREW, CAP, HEXAGON H UOC: YJB, YJD	4
3	PAFZZ		96906	MS35308-334	. BOLT, MACHINE UOC: YJC	4
4	XDFFF		97403	13229E5820-3	. SWITCH BOX ASSEMBLY UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
GROUP 02 ELECTRICAL SYSTEM - SWITCH BOX INSTALLATION (NEW)

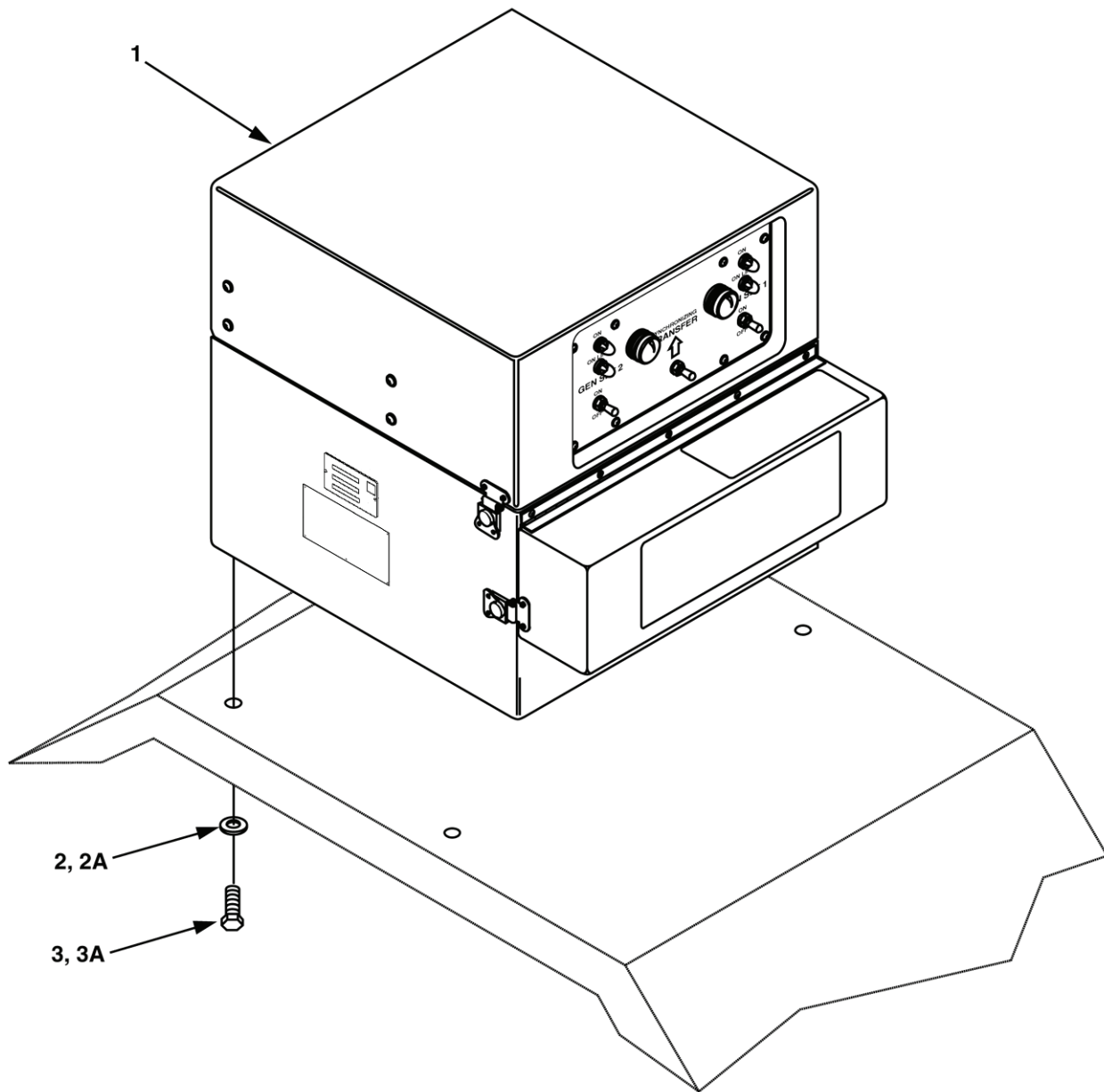


Figure 7. Switch Box Installation (NEW).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 7 SWITCH BOX INSTALLATION (NEW)						
1	XDFFF		97403	13230E6535	. SWITCHBOX ASSEMBLY UOC: YJB, YJD, YJC	1
2	PAFZZ		96906	MS51412-7	. WASHER, FLAT UOC: YJB, YJD	4
2A	PAFZZ		96906	MS15795-812	. WASHER, FLAT UOC: YJC	8
3	PAFZZ		80204	B1821BH038C150N	. SCREW, CAP, HEXAGON H UOC: YJB, YJD	4
3A	PAFZZ		96906	MS35308-334	. BOLT, MACHINE UOC: YJC	4
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

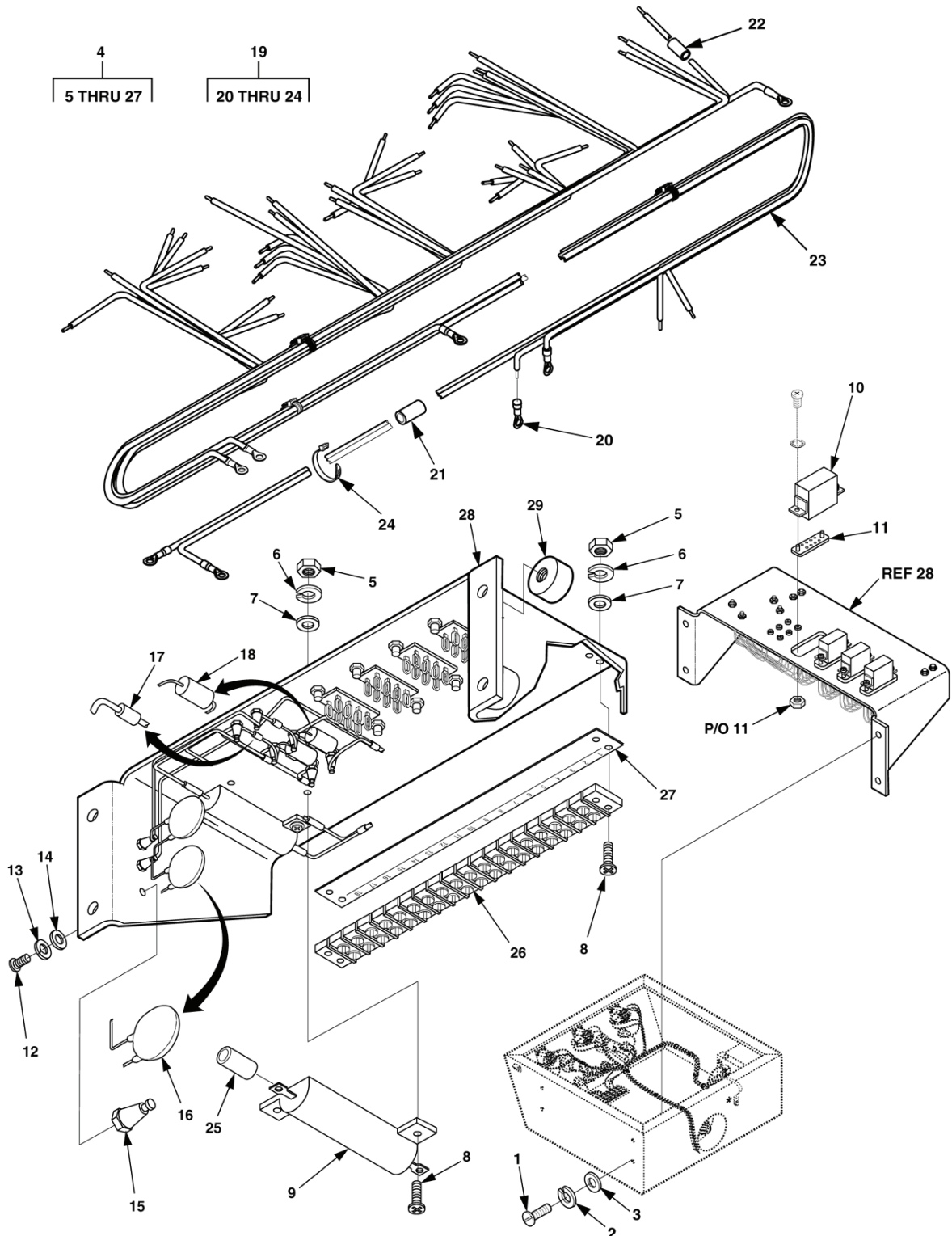
5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
GROUP 02 ELECTRICAL SYSTEM - RELAY BOARD HARNESS ASSEMBLY

Figure 8. Relay Board Harness Assembly (Sheet 1 of 2).

WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO	TERMINAL ITEM NO.	
1	XK3-2		TB1-1	20	23
2	XK3-3		TB1-4	20	23
3	XK3-4		TB1-5	20	23
4	XK3-5		TB1-3	20	23
5	XK3-6		TB1-6	20	23
6	XK3-7		TB1-2	20	23
7	XK5-2		TB1-1	20	23
8	XK5-3		TB1-8	20	23
9	XK5-4		TB1-10	20	23
10	XK5-5		TB1-17	20	23
11	XK5-6		TB1-6	20	23
12	E-7		E-6	-	23
13	XK4-2		TB1-14	20	23
14	XK4-3		TB1-9	20	23
15	XK4-4		TB1-5	20	23
16	XK4-5		TB1-3	20	23
17	XK4-6		TB1-7	20	23
18	XK4-7		TB1-15	20	23
19	R1-1		TB1-17	20	23
20	XK6-3		TB1-12	20	23
21	XK6-4		TB1-11	20	23
22	XK6-5		TB1-16	20	23
23	XK6-6		TB1-13	20	23
24	XK6-7		TB1-15	20	23
25	R1-2		E6	-	23
26	R2-2		E3	-	23
27	E5		TB1-1	20	23
28	E4		TB1-1	20	23
29	R2-1		TB1-16	20	23
30	E3		TB1-15	20	23
31	E-1		E4	-	23
32	XK5-7		TB1-2	20	23
33	E-1		TB1-14	20	23
34	E8		TB1-8	20	23
35	XK6-2		TB1-14	20	23
36	E9		E3		23

Figure 8. Relay Board Harness Assembly (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 8 RELAY BOARD HARNESS ASSEMBLY						
1	PAFZZ		96906	MS51957-46	. . SCREW, MACHINE UOC: YJB, YJD, YJC	4
2	PAFZZ		96906	MS35338-137	. . WASHER, LOCK UOC: YJB, YJD, YJC	6
3	PAFZZ		96906	MS15795-841	. . WASHER, FLAT UOC: YJB, YJD, YJC	4
4	XDFFF		97403	13229E5830	. . RELAY BOARD ASSEMBLY UOC: YJB, YJD, YJC	1
5	PAFZZ		96906	MS35649-244	. . . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	6
6	PAFZZ		96906	MS35338-135	. . . WASHER, LOCK UOC: YJB, YJD, YJC	6
7	PAFZZ		88044	AN960-C4	. . . WASHER, FLAT UOC: YJB, YJD, YJC	6
8	PAFZZ		96906	MS51957-18	. . . SCREW, MACHINE UOC: YJB, YJD, YJC	6
9	PAFZZ		81349	RER75F2490P	. . . RESISTOR, FIXED WIRE UOC: YJB, YJD, YJC	2
10	PAFZZ		81349	M5757/23-003	. . . RELAY, ELECTROMAGNET UOC: YJB, YJD, YJC	4
11	PAFZZ		97403	13222E9686	. . . SOCKET, PLUG-IN ELEC UOC: YJB, YJD, YJC	4
12	PAFZZ		96906	MS51957-27	. . . SCREW, MACHINE UOC: YJB, YJD, YJC	9
13	PAFZZ		96906	MS35338-136	. . . WASHER, LOCK UOC: YJB, YJD, YJC	9
14	PAFZZ		96906	MS51412-1	. . . WASHER, FLAT UOC: YJB, YJD, YJC	9
15	PAFZZ		81349	M55155/199G03	. . . TERMINAL, STUD UOC: YJB, YJD, YJC	9
16	PAFZZ		60705	565C10GAP10	. . . CAPACITOR UOC: YJB, YJD, YJC	2
17	PAFZZ		81349	JANTX1N5619	. . . SEMICONDUCTOR DEVICE UOC: YJB, YJD, YJC	4
18	PAFZZ		81349	M39006/22-0631	. . . CAPACITOR, FIXED, ELE UOC: YJB, YJD, YJC	2
19	XDFFF		97403	13229E5829	. . . HARNESS ASSEMBLY UOC: YJB, YJD, YJC	1
20	PAFZZ		96906	MS25036-101	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	31
21	MFFZZ		81349	M23053/5-107-4	. . . INSULATION SLEEVING, 1.5 IN. REQUIRED UOC: YJB, YJD, YJC	1
22	MFFZZ		81349	M23053/5-105-4	. . . INSULATION SLEEVING, 1.5 IN. REQUIRED UOC: YJB, YJD, YJC	70

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
23	MFFZZ		81349	M22759/16-20-9	... WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
24	PAFZZ		96906	MS3367-4-9	... STRAP, TIEDOWN, ELECT UOC: YJB, YJD, YJC	V
25	MFFZZ		81349	M23053/5-104-0	... INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
26	XDFZZ		81349	37TB18B	... TERMINAL BOARD UOC: YJB, YJD, YJC	1
27	PAFZZ		96906	MSA37TB18	... MARKER STRIP, TERMINAL UOC: YJB, YJD, YJC	1
28	XDFFF		97403	13229E5823	... BRACKET UOC: YJB, YJD, YJC	1
29	PAFZZ		81349	M45938/1-13C	... NUT, PLAIN, CLINCH UOC: YJB, YJD, YJC	4

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
GROUP 02 ELECTRICAL SYSTEM - PERMISSIVE PARALLELING RELAY

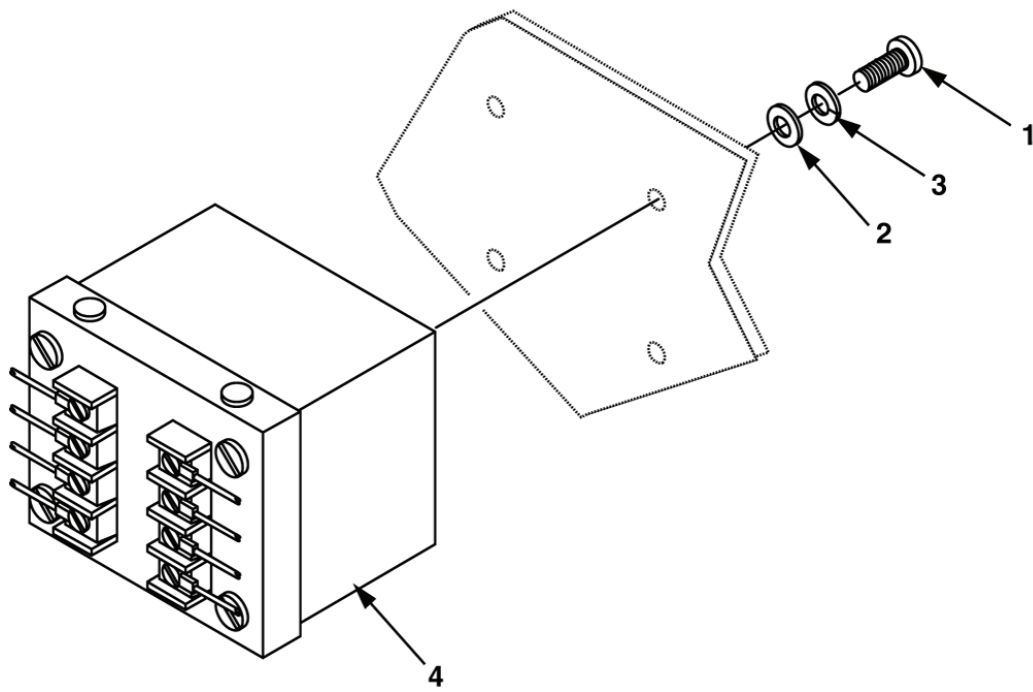


Figure 9. Permissive Paralleling Relay.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 9 PERMISSIVE PARALLELING RELAY						
1	PAFZZ		96906	MS51957-46	. . SCREW, MACHINE UOC: YJB, YJD, YJC	4
2	PAFZZ		96906	MS15795-841	. . WASHER, FLAT UOC: YJB, YJD, YJC	4
3	PAFZZ		96906	MS35338-137	. . WASHER, LOCK UOC: YJB, YJD, YJC	4
4	PAFZZ		60177	11500	. . RELAY, PERMISSIVE PR UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - INDICATOR LIGHTS

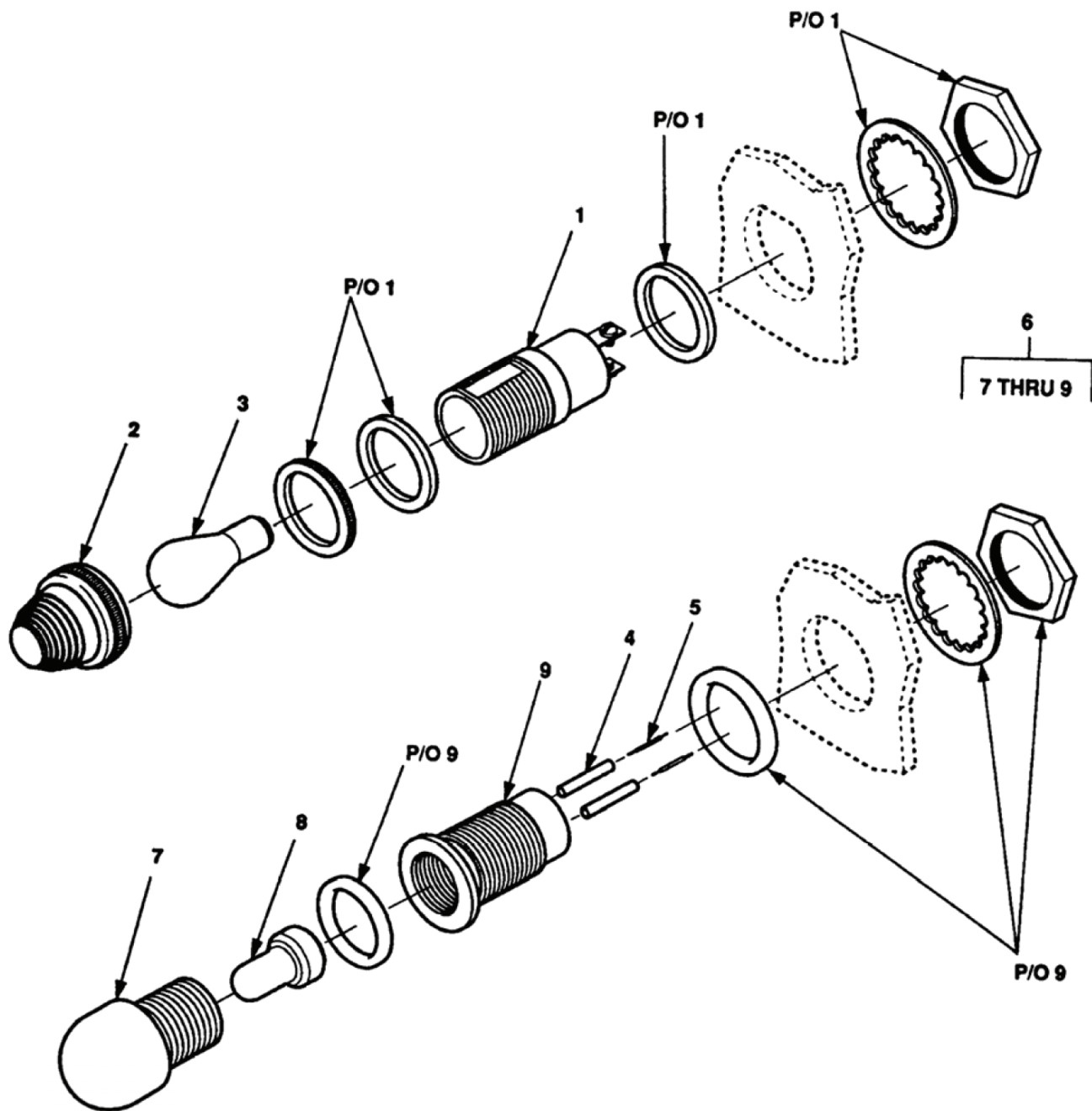


Figure 10. Indicator Lights.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 10 INDICATOR LIGHTS						
1	PAFZZ		81349	LH80/1	. . LIGHT, INDICATOR UOC: YJB, YJD, YJC	3
2	PAFZZ		81349	LC21CN3	. . LENS, LIGHT UOC: YJB, YJD, YJC	3
3	PAFZZ		96906	MS15667-2	. . LAMP, INCANDESCENT UOC: YJB, YJD, YJC	3
4	MOFZZ		81349	M23053/5-107-9	. . INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
5	MOFZZ		81349	M22759/16-20-9	. . WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
6	PAFFZ		97403	13214E1391	. . LIGHT, INDICATOR UOC: YJB, YJD, YJC	4
7	PAFZZ		72619	181-0931-001	. . . LENS, CLEAR UOC: YJB, YJD, YJC	1
8	PAFZZ		58224	G9B	. . . LAMP UOC: YJB, YJD, YJC	1
9	PAFZZ		72619	181-8836-09-553	. . . LIGHT, INDICATOR UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - LIGHT ASSEMBLY

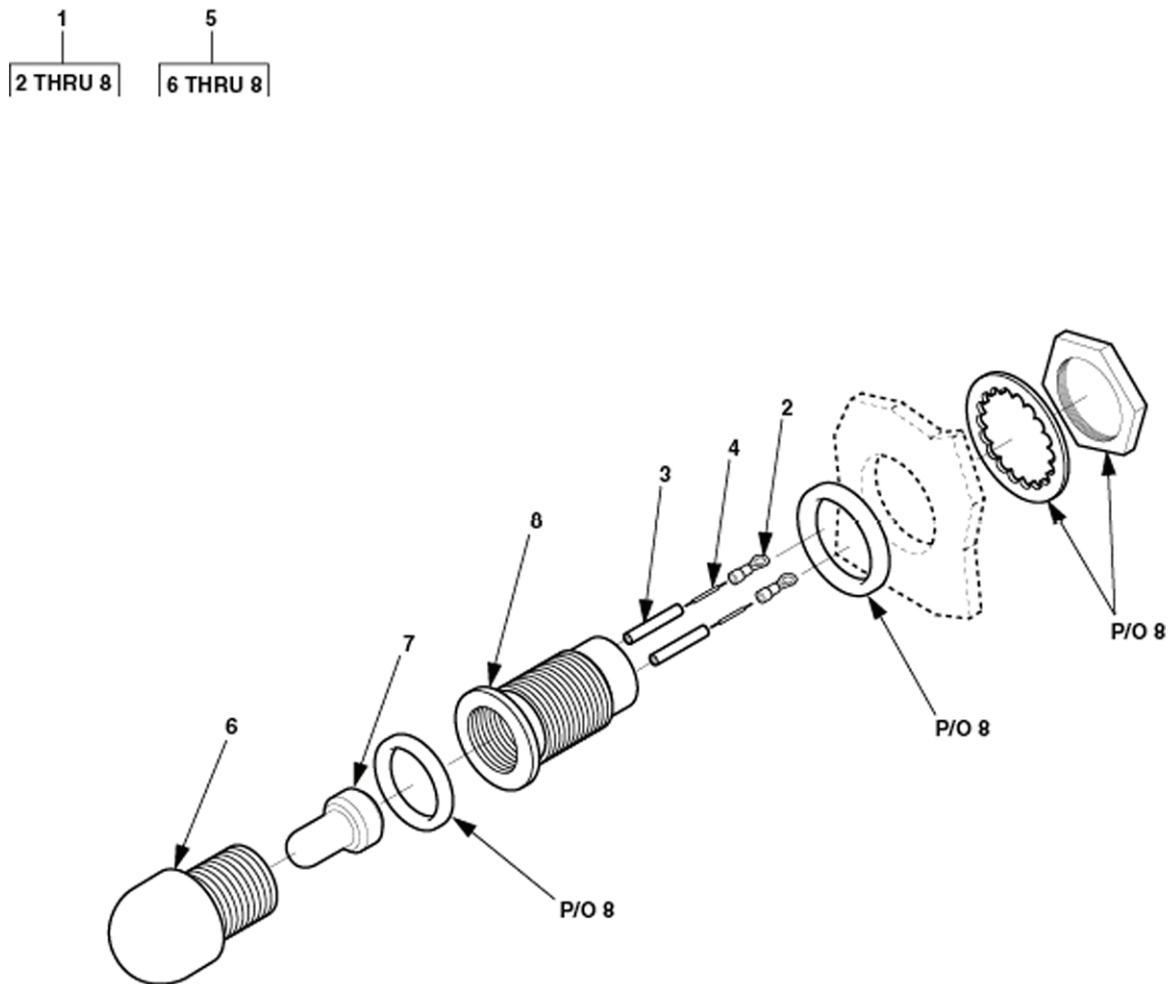


Figure 11. Light Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 11 LIGHT ASSEMBLY						
1	AFFFF		97403	13229E5764-2	. . LIGHT AND WIRE UOC: YJB, YJD, YJC	4
2	PAFZZ		96906	MS25036-101	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	2
3	MFFZZ		81349	M23053/5-104-9	. . . INSULATION SLEEVING, 1 INCH REQUIRED UOC: YJB, YJD, YJC	2
4	MFFZZ		81349	M5086/2-18-9	. . . WIRE, ELECTRICAL, 8 INCHES REQUIRED UOC: YJB, YJD, YJC	2
5	PAFFF		97403	13214E1391	. . . LIGHT, INDICATOR UOC: YJB, YJD, YJC	1
6	PAFZZ		72619	181-0931-001	 LENS, CLEAR UOC: YJB, YJD, YJC	1
7	PAFZZ		58224	G9B	 LAMP UOC: YJB, YJD, YJC	1
8	PAFZZ		72619	181-8836-09-553	 LIGHT, INDICATOR UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - SWITCHES

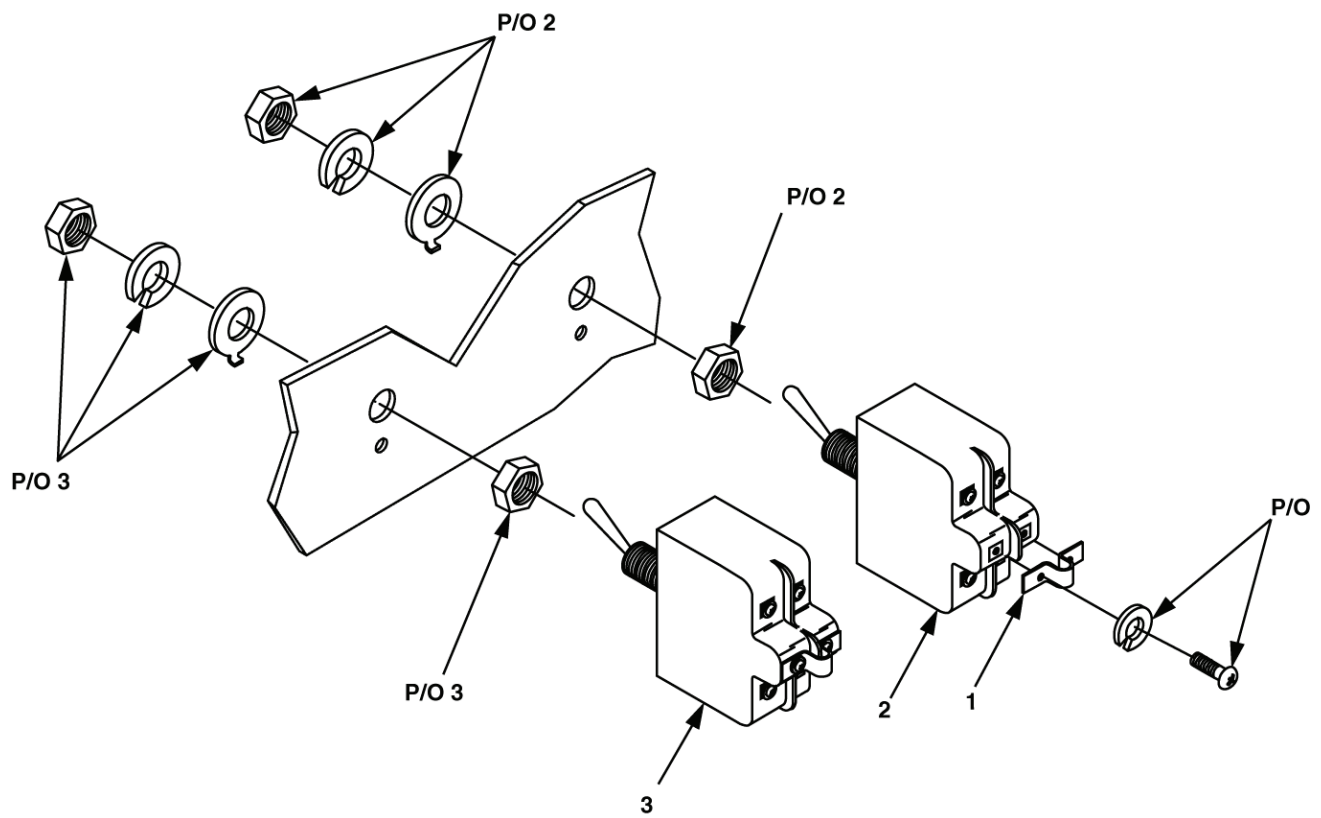


Figure 12. Switches.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 12 SWITCHES						
1	PAFZZ		81349	TBJA	. . BUS, CONDUCTOR UOC: YJB, YJD, YJC	2
2	PAFZZ		96906	MS27407-3	. . SWITCH, TOGGLE ON LINE SWITCH UOC: YJB, YJD, YJC	2
3	PAFZZ		96906	MS24524-30	. . SWITCH, TOGGLE TRANSFER SWITCH UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - LOAD TERMINAL COVER (OLD)

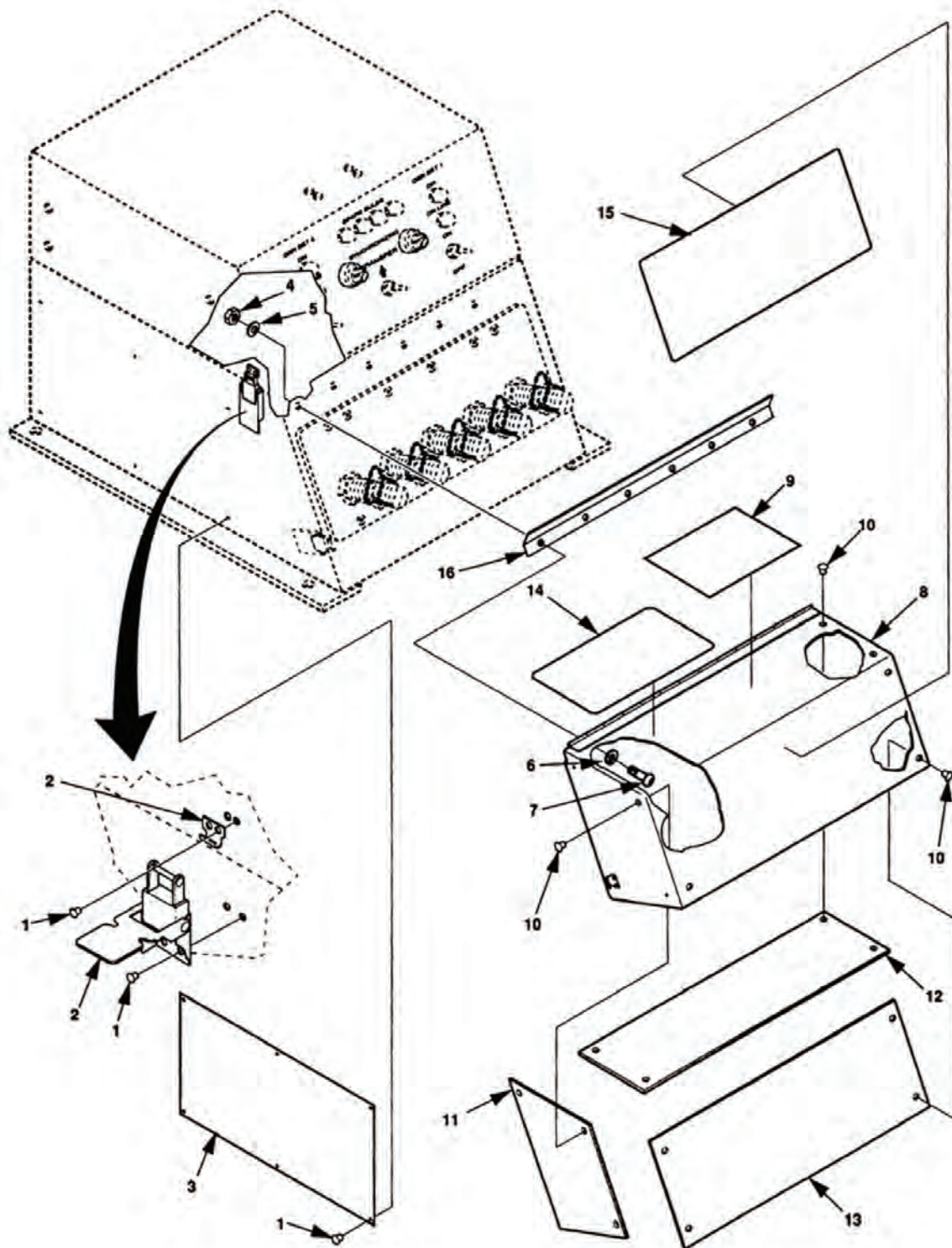


Figure 13. Load Terminal Cover (OLD).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 13 LOAD TERMINAL COVER (OLD)						
1	PAFZZ		96906	MS20600AD4W3	RIVET, BLIND UOC: YJB, YJC, YJD	22
2	PAFZZ		94222	K3-1735-07	CATCH, CLAMPING UOC: YJB, YJC, YJD	4
3	MDFZZ		97403	13229E5819-1	PLATE, IDENTIFICATION SCHEM- ATIC UOC: YJB, YJC, YJD	1
3	MDFZZ		97403	13229E5819-2	PLATE, IDENTIFICATION SCHEM- ATIC UOC: YJB, YJC, YJD	1
4	PAFZZ		96906	MS35649-284	NUT, PLAIN, HEXAGON UOC: YJB, YJC, YJD	6
5	PAFZZ		96906	MS35338-137	WASHER, LOCK UOC: YJB, YJC, YJD	6
6	PAFZZ		96906	MS15795-841	WASHER, FLAT UOC: YJB, YJC, YJD	6
7	PAFZZ		96906	MS51957-46	SCREW, MACHINE UOC: YJB, YJC, YJD	6
8	XDFFF		97403	13229E5649-1	COVER, LOAD TERMINAL UOC: YJB, YJC, YJD	1
9	MDFZZ		97403	13229E5728-1	MARKER, WARNING UOC: YJB, YJC, YJD	1
10	PAFZZ		96906	MS20600AD3W3	RIVET, BLIND UOC: YJB, YJC, YJD	18
11	MFFZZ		19099	13229E5649-1-6	SHEET, PLASTIC MAKE FROM M24768/2-S-7 (81349), 4.5X6.5 IN REQUIRED UOC: YJB, YJC, YJD	2
12	MFFZZ		19099	13229E5649-1-12	SHEET, PLASTIC MAKE FROM M24768/2-S-7 (81349), 5X13.5 IN REQUIRED UOC: YJB, YJC, YJD	1
13	MFFZZ		19099	13229E5649-1-13	SHEET, PLASTIC MAKE FROM M24768/2-S-7 (81349), 4.75X13.5 IN REQUIRED UOC: YJB, YJC, YJD	1
14	MDFZZ		97403	13229E5654-1	PLATE IDENTIFICATION POWER PLANT OPERATING PROCED- URES UOC: YJB, YJC, YJD	1
15	MDFZZ		97403	13229E5654-2	PLATE IDENTIFICATION LOAD TRANSFER PROCEDURES UOC: YJB, YJC, YJD	1
16	XDFZZ		97403	13229E9630	STOP, TERMINAL COVER UOC: YJB, YJC, YJD	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - LOAD TERMINAL COVER (NEW)

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 021 ELECTRICAL SYSTEM						
FIG. 14 LOAD TERMINAL COVER (NEW)						
1	PAFZZ		96906	MS20600AD4W3	. . RIVET, BLIND UOC: YJB, YJD, YJC	24
2	PAFZZ		94222	K3-1735-07	. . CATCH, CLAMPING UOC: YJB, YJD, YJC	4
3	MDFZZ		97403	13230E6535-5	. . PLATE, IDENTIFICATION UOC: YJB, YJD, YJC	1
4	PAFZZ		96906	MS35649-284	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	6
5	PAFZZ		96906	MS35338-137	. . WASHER, LOCK UOC: YJB, YJD, YJC	6
6	PAFZZ		96906	MS15795-841	. . WASHER, FLAT UOC: YJB, YJD, YJC	6
7	PAFZZ		96906	MS51957-46	. . SCREW, MACHINE UOC: YJB, YJD, YJC	6
8	XDFFF		97403	13229E5649-1	. . COVER, LOAD TERMINAL UOC: YJB, YJD, YJC	1
9	MDFZZ		97403	13229E5728-1	. . . MARKER, WARNING UOC: YJB, YJD, YJC	1
10	MFFZZ		81349	M24768/2-S-7	. . . SHEET, PLASTIC, 4.5 X 6.5 IN. REQUIRED UOC: YJB, YJD, YJC	2
11	MFFZZ		81349	M24768/2-S-7	. . . SHEET, PLASTIC, 4.75 X 13.5 IN. REQUIRED UOC: YJB, YJD, YJC	1
12	MFFZZ		81349	M24768/2-S-7	. . . SHEET, PLASTIC, 5 X 13.5 IN. REQUIRED UOC: YJB, YJD, YJC	1
13	MDFZZ		97403	13229E5654-1	. . . PLATE, IDENTIFICATION POWER PLANT OPERATING PRO- CEDURES UOC: YJB, YJD, YJC	1
14	MDFZZ		97403	13229E5654-2	. . . PLATE, IDENTIFICATION LOAD TRANSFER PROCEDURES UOC: YJB, YJD, YJC	1
15	XDFZZ		97403	13229E9630	. . STOP, TERMINAL COVER UOC: YJB, YJD, YJC	1
16	PAFZZ		94222	K3-1735-07	. . KEEPER UOC: YJB, YJD	4
17	MFFZZ		97403	13230E7022-58	. . PLATE, IDENTIFICATION UOC: YJB, YJC, YJD	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - LOAD TERMINAL

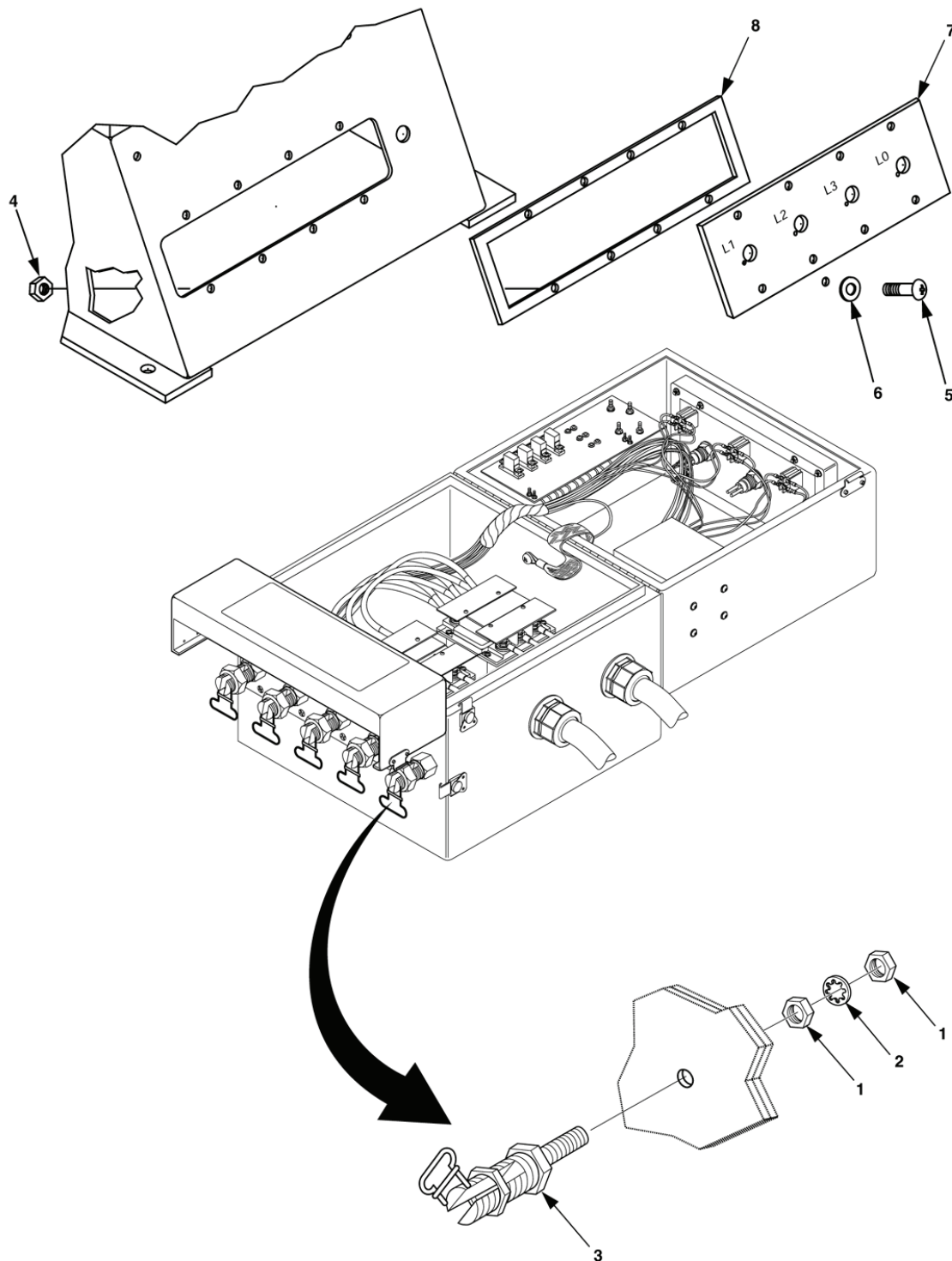


Figure 15. Load Terminal.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 15 LOAD TERMINAL						
1	PAFZZ		96906	MS35691-35	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	10
2	PAFZZ		96906	MS35333-113	. . WASHER, LOCK UOC: YJB, YJD, YJC	5
3	PAFFF		96906	MS39347-4	. . TERMINAL, LOAD UOC: YJB, YJD, YJC	5
4	PAFZZ		96906	MS51858-5	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	8
5	PAFZZ		96906	MS18212-65	. . SCREW, MACHINE UOC: YJB, YJD, YJC	8
6	PAFZZ		96906	MS51859-5	. . WASHER, FLAT UOC: YJB, YJD, YJC	8
7	XDFZZ		97403	13229E5833	. . PANEL, LOAD TERMINAL UOC: YJB, YJD, YJC	1
8	XDFZZ		97403	13229E9631	. . GASKET, LOAD TERMINAL UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - ELECTRICAL LEADS

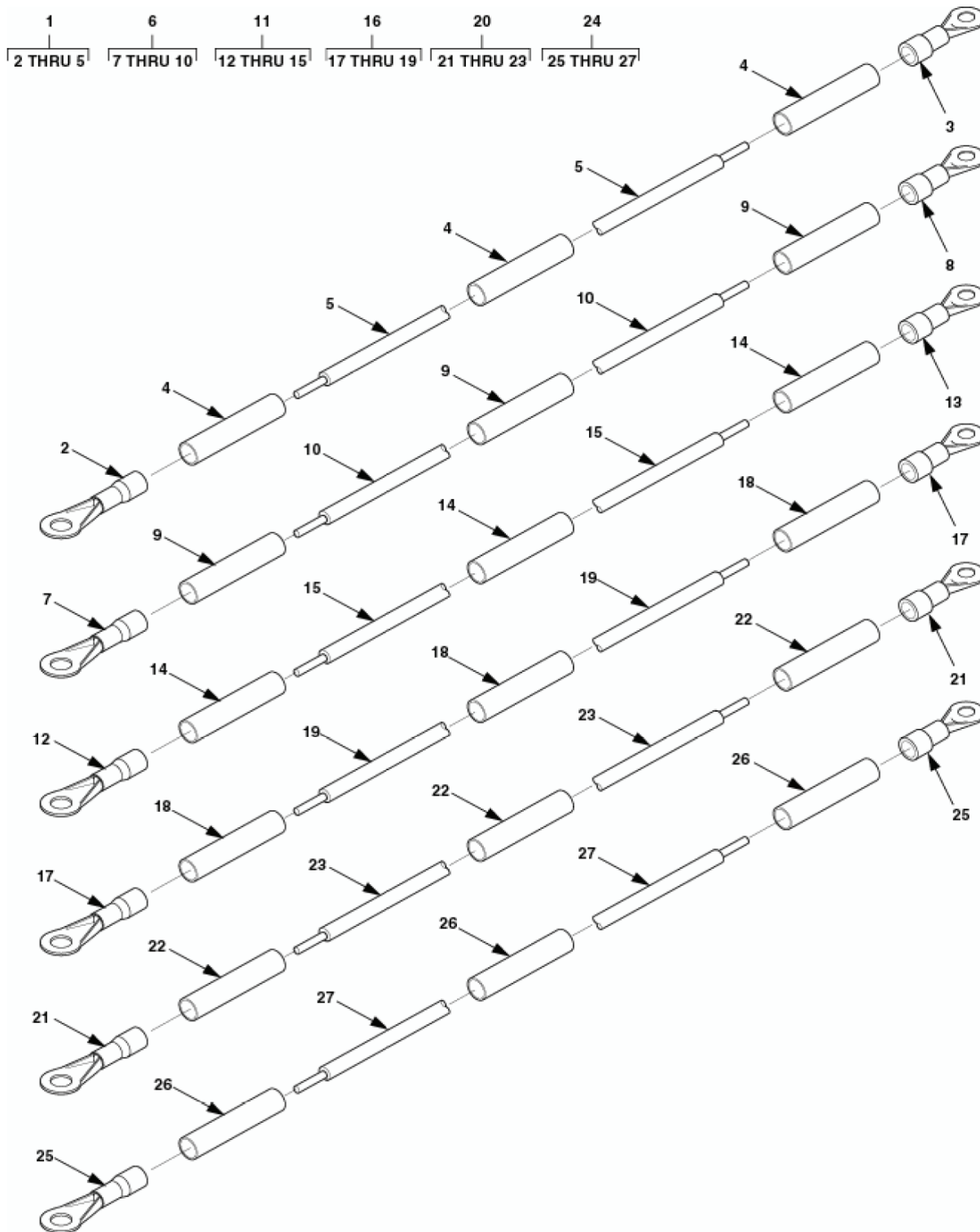


Figure 16. Electrical Leads.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 16 ELECTRICAL LEADS						
1	AFFFF		97403	13229E5828-1	. . LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
2	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
3	PAFZZ		96906	MS25036-125	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
4	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING, 2.5 IN. REQUIRED UOC: YJB, YJD, YJC	3
5	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 16 IN. REQUIRED UOC: YJB, YJD, YJC	3
6	AFFFF		97403	13229E5828-2	. . LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
7	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
8	PAFZZ		96906	MS25036-125	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
9	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING, 2.5 IN. REQUIRED UOC: YJB, YJD, YJC	3
10	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 18 IN. REQUIRED UOC: YJB, YJD, YJC	1
11	AFFFF		97403	13229E5828-3	. . LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
12	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
13	PAFZZ		96906	MS25036-125	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
14	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING, 2.5 IN. REQUIRED UOC: YJB, YJD, YJC	3
15	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 23 IN. REQUIRED UOC: YJB, YJD, YJC	1
16	AFFFF		97403	13229E5828-4	. . LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
17	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	2
18	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING, 2.5 IN. REQUIRED UOC: YJB, YJD, YJC	3
19	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 12 IN. REQUIRED UOC: YJB, YJD, YJC	1
20	AFFFF		97403	13229E5828-5	. . LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
21	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	2
22	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING, 2.5 IN. REQUIRED UOC: YJB, YJD, YJC	3
23	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 12 IN. REQUIRED UOC: YJB, YJD, YJC	1
24	AFFFF		97403	13229E5828-6	. . LEAD, ELECTRICAL UOC: YJB, YJD, YJC	1
25	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	2
26	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING, 2.5 IN. REQUIRED UOC: YJB, YJD, YJC	3
27	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 12 IN. REQUIRED UOC: YJB, YJD, YJC	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - OUTPUT CONNECTOR HARNESS ASSEMBLY

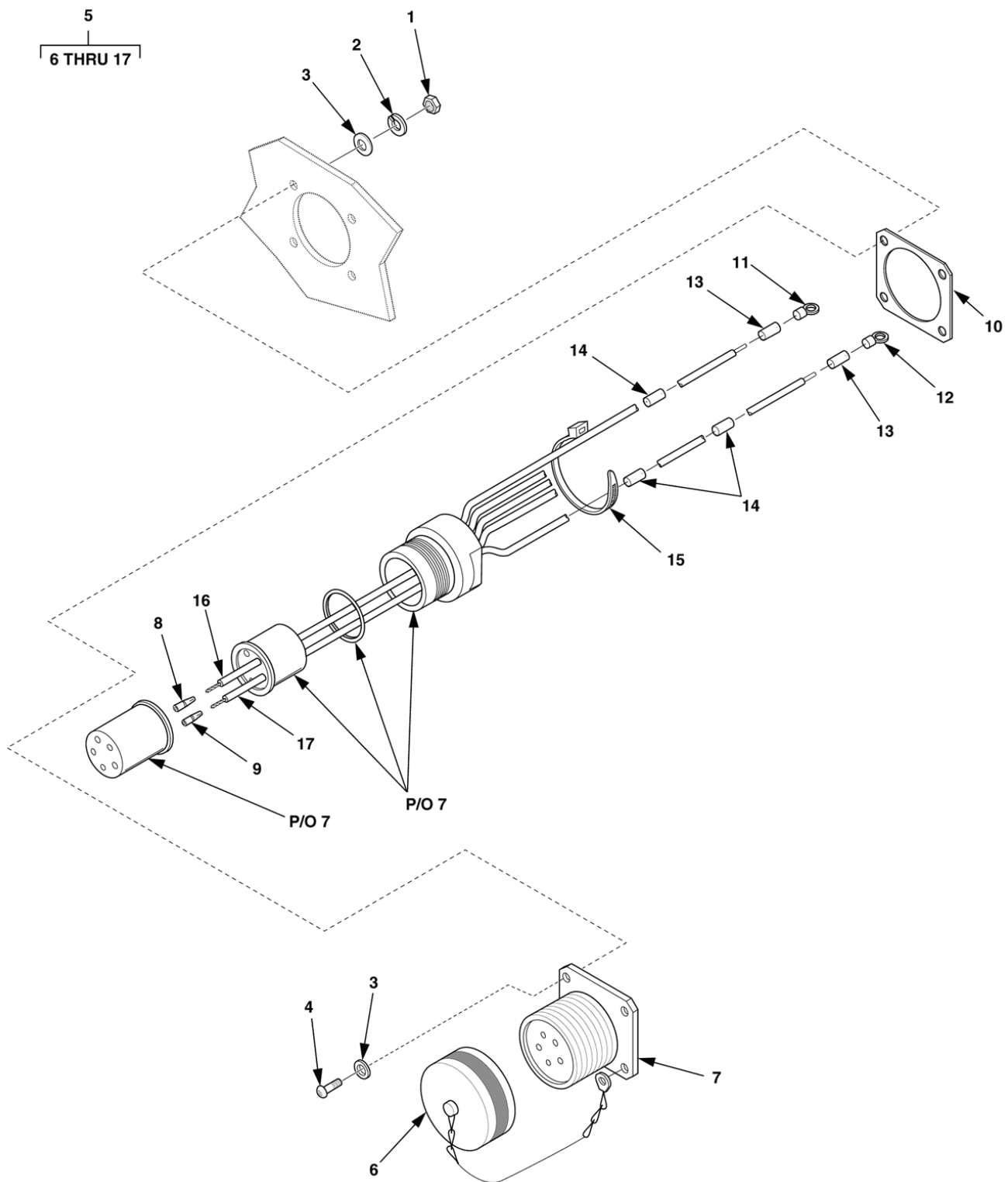


Figure 17. Output Connector Harness Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 17 OUTPUT CONNECTOR HARNESS ASSEMBLY						
1	PAFZZ		96906	MS35650-304	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	4
2	PAFZZ		96906	MS35338-138	. . WASHER, LOCK UOC: YJB, YJD, YJC	4
3	PAFZZ		96906	MS15795-848	. . WASHER, FLAT UOC: YJB, YJD, YJC	8
4	PAFZZ		96906	MS51958-67	. . SCREW, MACHINE UOC: YJB, YJD, YJC	4
5	XDFFF		97403	13229E5832-1	. . HARNESS ASSEMBLY OUTPUT CONNECTOR UOC: YJB, YJD, YJC	1
6	PAFZZ		96906	MS90563-3C	. . . COVER, ELECTRICAL CO UOC: YJB, YJD, YJC	1
7	PAFZZ		96906	MS90555C32413S	. . . CONNECTOR, RECEPTACLE UOC: YJB, YJD, YJC	1
8	PAFZZ		81349	M39029/49-331	 CONTACT, ELECTRICAL UOC: YJB, YJD, YJC	4
9	PAFZA		81349	M39029/49-329	 CONTACT, ELECTRICAL UOC: YJB, YJD, YJC	1
10	PAFZZ		59501	10-33675-36	 GASKET UOC: YJB, YJD, YJC	1
11	PAFZZ		96906	MS20659-145	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	4
12	PAFZZ		96906	MS20659-143	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
13	MFFZZ		81349	M23053/5-108-0	. . . INSULATION SLEEVING, 1 IN. REQUIRED UOC: YJB, YJD, YJC	5
14	MFFZZ		81349	M23053/5-108-4	. . . INSULATION SLEEVING MAKE, AS REQUIRED UOC: YJB, YJD, YJC	6
15	PAFZZ		96906	MS3367-1-9	. . STRAP, TIEDOWN, ELEC- TRICAL UOC: YJB, YJD, YJC	V
16	MFFZZ		81349	M5086/2-4-9	. . . WIRE, ELECTRICAL, 82 IN. REQUIRED UOC: YJB, YJD, YJC	1
17	MFFZZ		81349	M5086/2-6-9	. . . WIRE, ELECTRICAL, 26 IN. REQUIRED UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

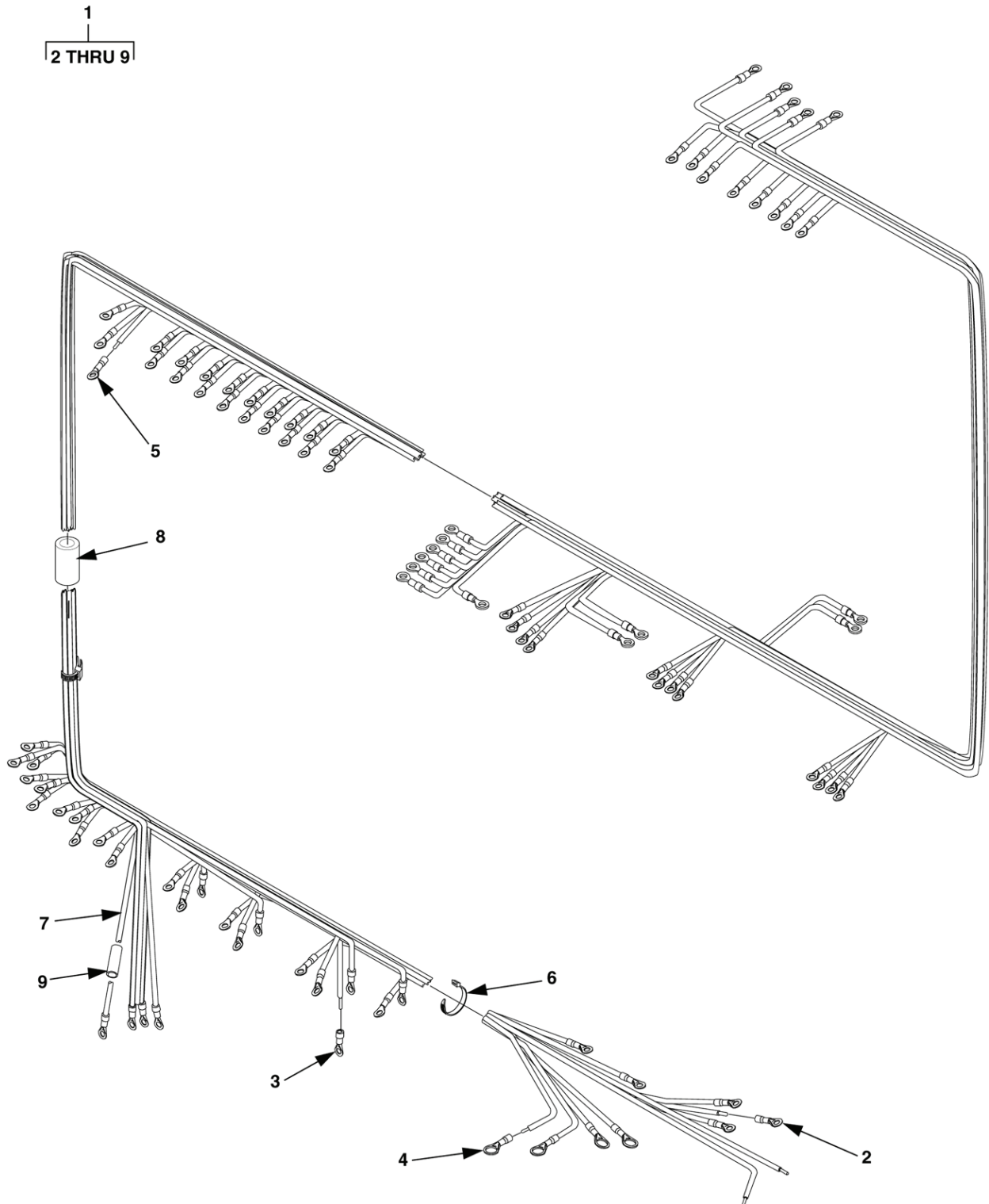
5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
GROUP 02 ELECTRICAL SYSTEM - SWITCH BOX HARNESS ASSEMBLY

Figure 18. Switch Box Harness Assembly (Sheet 1 of 2).

WIRE LIST					
WIRE NO.	TERMINATION		TERMINATION		WIRE ITEM NO.
	FROM	ITEM NO.	TO	TERMINAL ITEM NO.	
1	TB1-17	3	S10-2	3	7
2	TB1-2	3	PP-4	3	7
3	TB1-3	3	PP-3	3	7
4	TB1-4	3	K2-C2	2	7
5	TB1-5	3	XDS6-2	-	7
6	TB1-6	3	K2-22	3	7
7	TB1-7	3	K1-A2	2	7
8	TB1-8	3	K1-21	3	7
9	TB1-9	3	K1-C2	2	7
10	TB1-10	3	K2-11	3	7
11	TB1-10	3	PP-6	3	7
12	TB1-11	3	PP-8	3	7
13	TB1-12	3	K2-21	3	7
14	TB1-13	3	K1-22	3	7
15	TB1-16	3	S10-5	3	7
16	-	-	-	-	-
17	TB2-5	-	K2-A2	2	7
18	-	-	-	-	-
19	TB2-4	3	K2-Y	3	7
20	XDS6-1	-	R3-1	-	-
21	XDS5-2	-	PP-3	3	7
22	XDS5-1	-	PP-1	3	7
23	TB2-2	3	K1-A2	2	7
24	-	-	-	-	-
25	S2-2	3	S10-4	3	7
26	-	-	-	-	-
27	-	-	-	-	-
28	S1-6	3	PP-7	3	7
29	S1-2	3	S10-1	3	7
30	S1-5	3	K1-12	3	7
31	S2-6	3	PP-5	3	7
32	-	-	-	-	-
33	S2-5	3	K2-12	3	7
34	K1-11	3	PP-8	3	7
35	PP-4	3	LO	4	7
36	XDS7-2	-	PP-1	3	7
37	XDS7-1	-	L3	4	7
38	K1-22	3	K2-32	3	7
39	K2-32	3	K1-A2	2	7
40	K2-22	3	K2-A2	2	7
41	K1-32	3	K2-A2	2	7
42	K1-33	3	K2-11	3	7
43	K2-Y	3	LO	4	7
44	K2-X	3	S2-3	3	7
45	K2-33	3	K1-11	3	7
46	K1-X	3	S1-3	3	7
47	K1-Y	3	LO	4	7
48	K1-Y	3	TB2-1	3	7
49	K2-A1	2	R3-2	-	7
50	PP-2	3	PP-3	3	7
51	TB1-18	3	TB2-3	3	7
52	G	5	TB2-3	3	7

Figure 18. Switch Box Harness Assembly (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 18 SWITCH BOX HARNESS ASSEMBLY						
1	XDFFF		97403	13229E5831	. . HARN ASSY, SWITCH BOX UOC: YJB, YJD, YJC	1
2	PAFZZ		96906	MS25036-110	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	9
3	PAFZZ		96906	MS25036-107	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	70
4	PAFZZ		96906	MS25036-155	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	4
5	PAFZZ		96906	MS25036-108	. . . TERMINAL, LUG UOC: YJB, YJD, YJC	1
6	PAFZZ		96906	MS3367-4-9	. . . STRAP, TIEDOWN, ELEC- TRICAL UOC: YJB, YJD, YJC	V
7	MFFZZ		81349	M22759/16-16-9	. . . WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
8	MFFZZ		81349	M23053/5-107-4	. . . INSULATION SLEEVING, 1.5 IN. REQUIRED UOC: YJB, YJD, YJC	1
9	MFFZZ		81349	M23053/5-105-4	. . . INSULATION SLEEVING, MAKE AS REQUIRED UOC: YJB, YJD, YJC	10
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - CONTACTOR

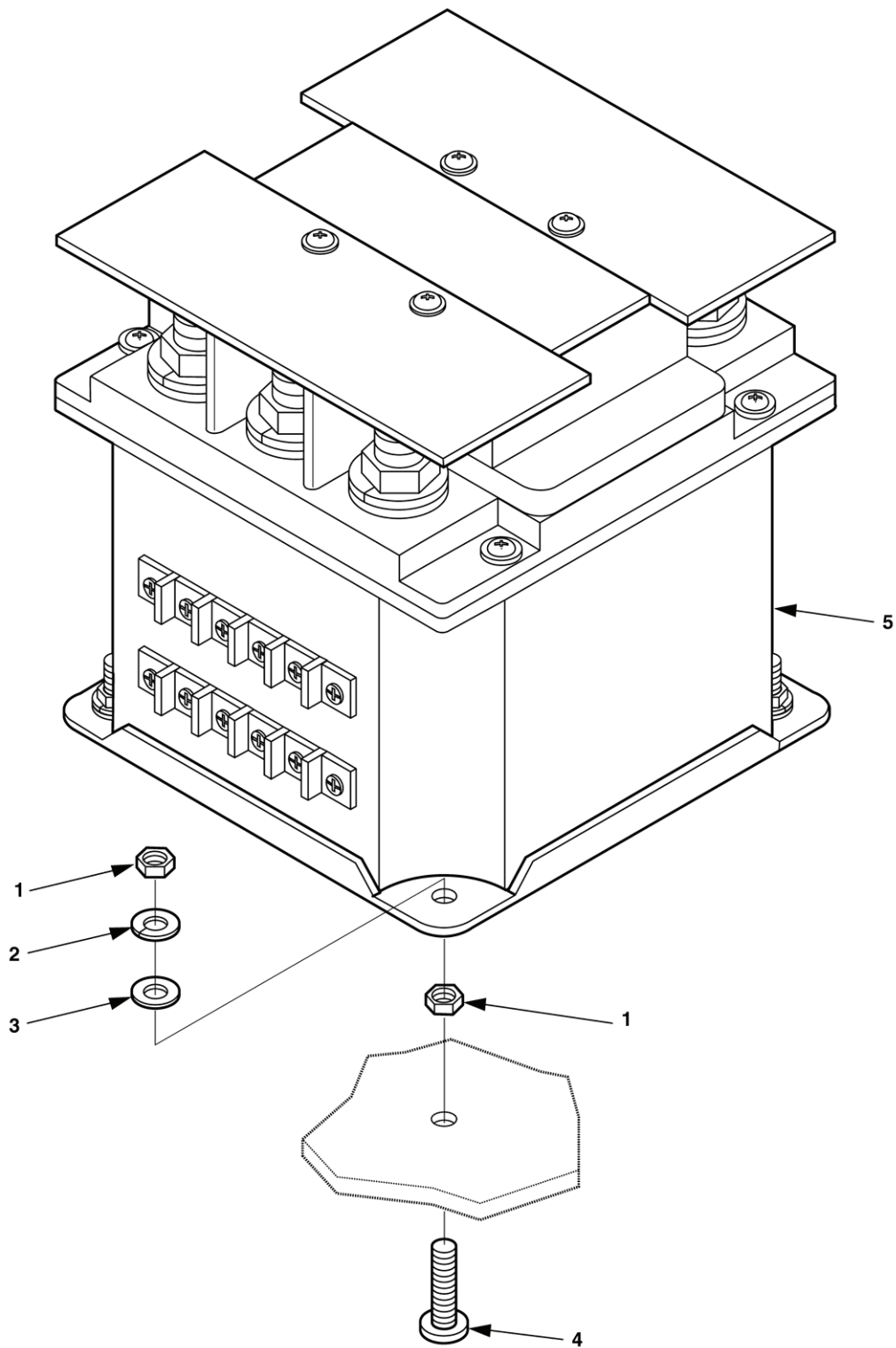


Figure 19. Contactor.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 19 CONTACTOR						
1	PAFZZ		96906	MS35650-304	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	16
2	PAFZZ		96906	MS35338-138	. . WASHER, LOCK UOC: YJB, YJD, YJC	8
3	PAFZZ		96906	MS15795-848	. . WASHER, FLAT UOC: YJB, YJD, YJC	8
4	PAFZZ		96906	MS51958-67	. . SCREW, MACHINE UOC: YJB, YJD, YJC	8
5	PAFZZ		7E656	JCG-6026	. . CONTACTOR UOC: YJB, YJD, YJC	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - RESISTOR R3

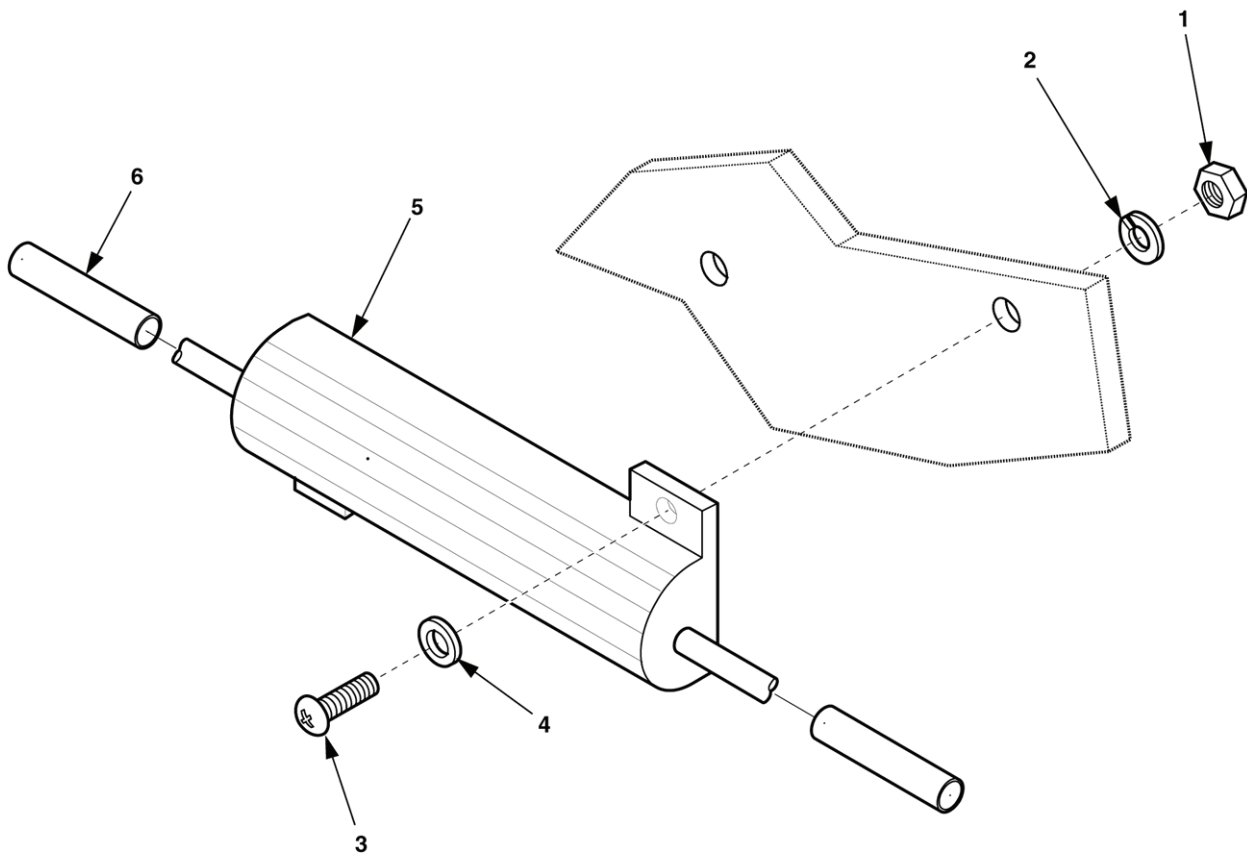


Figure 20. Resistor R3.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 20 RESISTOR R3						
1	PAFZZ		96906	MS35649-244	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	2
2	PAFZZ		96906	MS35338-135	. . WASHER, LOCK UOC: YJB, YJD, YJC	2
3	PAFZZ		96906	MS51957-16	. . SCREW, MACHINE UOC: YJB, YJD, YJC	2
4	PAFZZ		88044	AN960-C4	. . WASHER, FLAT UOC: YJB, YJD, YJC	2
5	PAFZZ		81349	RER75F2491R	. . RESISTOR UOC: YJB, YJD, YJC	1
6	MFFZZ		81349	M23053/5-105-0	. . INSULATION SLEEVING, .75 IN. REQUIRED UOC: YJB, YJD, YJC	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 02 ELECTRICAL SYSTEM - SWITCH BOX ASSEMBLY

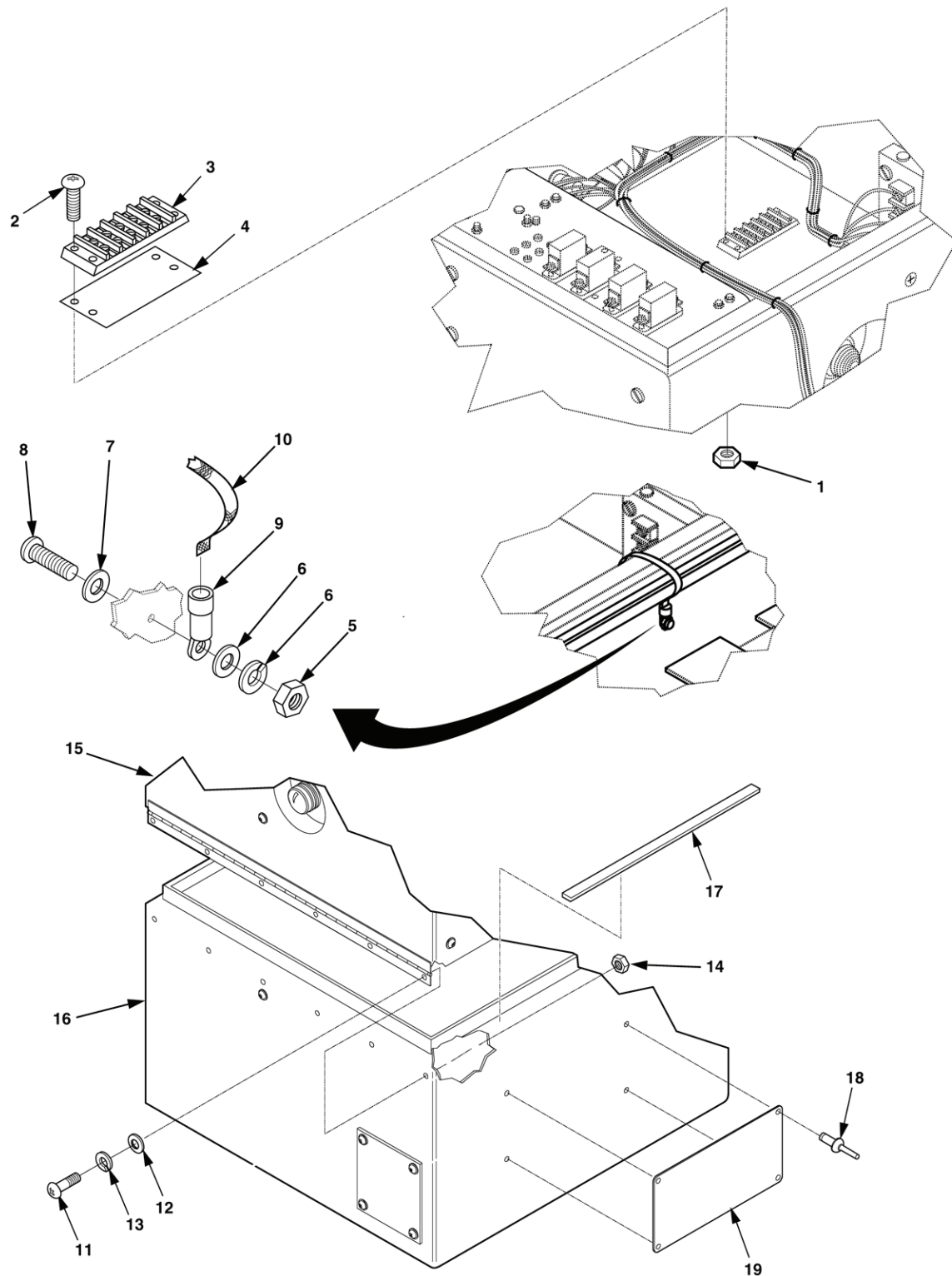


Figure 21. Switch Box Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 02 ELECTRICAL SYSTEM						
FIG. 21 SWITCH BOX ASSEMBLY						
1	PAFZZ		96906	MS35649-264	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	4
2	PAFZZ		96906	MS51957-31	. . SCREW, MACHINE UOC: YJB, YJD, YJC	4
3	PAFZZ		81349	37TB5	. . TERMINAL BOARD UOC: YJB, YJD, YJC	1
4	PAFZZ		81349	MSA37TB5	. . MARKER STRIP, TERMINAL UOC: YJB, YJD, YJC	1
5	PAFZZ		96906	MS35650-304	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	2
6	PAFZZ		96906	MS35338-138	. . WASHER, LOCK UOC: YJB, YJD, YJC	2
7	PAFZZ		96906	MS15795-848	. . WASHER, FLAT UOC: YJB, YJD, YJC	2
8	PAFZZ		96906	MS51958-64	. . SCREW, MACHINE UOC: YJB, YJD, YJC	2
9	PAFZZ		96906	MS25036-119	. . TERMINAL, LUG UOC: YJB, YJD, YJC	2
10	MFFZZ		81348	QQB575F30T0437	. . BRAID, WIRE, 8 IN. REQUIRED UOC: YJB, YJD, YJC	1
11	PAFZZ		96906	MS51957-46	. . SCREW, MACHINE UOC: YJB, YJD, YJC	5
12	PAFZZ		96906	MS15795-841	. . WASHER, FLAT UOC: YJB, YJD, YJC	5
13	PAFZZ		58536	MS35338-137	. . WASHER, LOCK UOC: YJB, YJD, YJC	5
14	PAFZZ		96906	MS35649-284	. . NUT, PLAIN, HEXAGON UOC: YJB, YJD, YJC	5
15	XDFZZ		97403	13230E6537	. . COVER, SWITCHBOX UOC: YJB, YJD, YJC	1
16	XDFFF		97403	13230E6536	. . ENCLOSURE, SWITCHBOX UOC: YJB, YJD, YJC	1
17	MFFZZ		81346	2B2B2C1F2	. . . STRIP, RUBBER, 14 IN. REQUIRED UOC: YJB, YJD, YJC	4
18	PAFZZ		96906	MS27130-CR93	. . . NUT, PLAIN, BLIND RIVET UOC: YJB, YJD, YJC	5
19	MDFZZ		97409	13229E5819-3	. . PLATE, IDENTIFICATION SCHEMATIC UOC: YJB, YJD, YJC	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 03 ACCESSORIES - ACCESSORIES

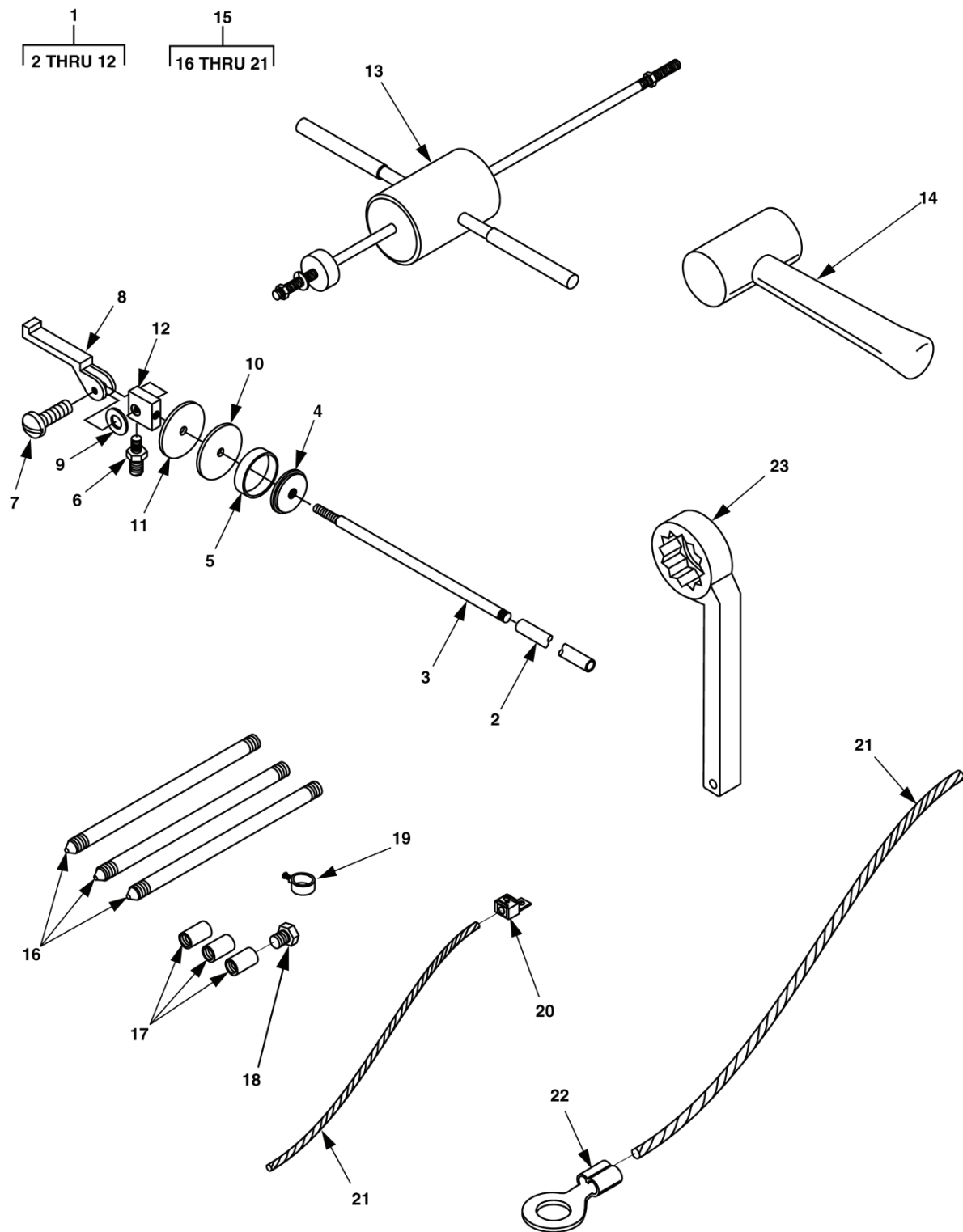


Figure 22. Accessories.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 22 ACCESSORIES						
1	PAFZZ		97403	13211E7541	. ADAPTER, CONTAINER	1
2	PAFZZ		97403	13211E7542	. . PIPE, METALLIC	1
3	PAFZZ		97403	13211E7543	. . PIPE, METALLIC	1
4	PAFZZ		97403	13211E7544	. . WASHER, RECESSED	1
5	PAFZZ		97403	13211E7546	. . GASKET	1
6	PAFZZ		88044	AN816-5-4	. . ADAPTER, STRAIGHT, PI	1
7	PAFZZ		00141	4328	. . SCREW, SHOULDER	2
8	XAFZZ		97403	13200E6363	. . CLAMP, STRAINER	1
9	PAFZZ		96906	MS35335-60	. . WASHER, LOCK	2
10	XAFZZ		97403	13211E7547	. . WASHER, FLAT	1
11	XAFZZ		97403	13200E6361	. . WASHER, FLAT	1
12	XAFZZ		97403	13211E7548	. . HEAD	1
13	PAFZZ		97403	13226E7741	. SLIDE HAMMER, GROUND	1
14	PAFZZ		80244	GGG-H-86,TY10,CL	. HAMMER, HAND	1
15	PAFFZ		15277	FSO216B122-1	. ROD, GROUND WITH ATTACH- MENTS	1
16	PAFZZ		56681	A-A-55804-111-B	. . ROD, GROUND	3
17	PAFZZ		OBKK8	GRC 58	. . COUPLING, GROUND ROD	3
18	PAFZZ		73616	GRB58	. . DRIVE HEAD	1
19	PAFZZ		04655	70-801074	. . CLAMP, ELECTRICAL	1
20	PAFZZ		01667	CBA-70	. . TERMINAL, LUG	1
21	MFFZZ		81348	QQW343CO6B1B	. . WIRE, ELECTRICAL, 6 FT REQUIRED	2
22	PAFZZ		96906	MS25036-122	. . TERMINAL, LUG UOC: YJB, YJD, EVR	1
23	PAFZZ		30554	72-2029-1	. . WRENCH, BOX	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 03 ACCESSORIES - ACCESSORY BOX

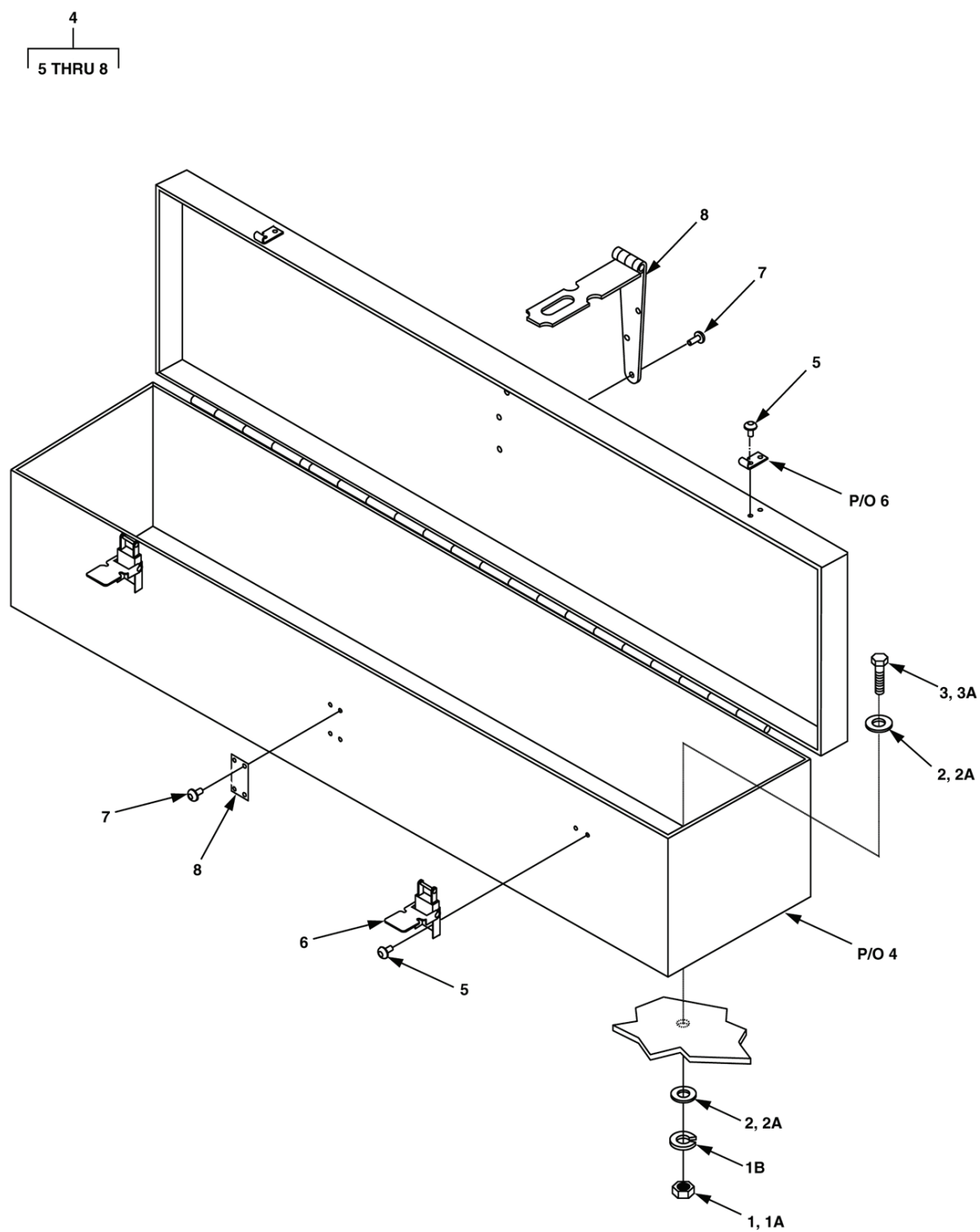


Figure 23. Accessory Box.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 23 ACCESSORY BOX						
1	PAFZZ		96906	MS51922-9	. NUT, SELF-LOCKING, HEXAGON UOC: YJD	3
1A	PAFZZ		96906	MS51922-9	. NUT, SELF-LOCKING, HEXAGON UOC: YJB, EVR.....	4
1B	PAFZZ		96906	MS35338-140	. WASHER, LOCK UOC: YJC, YFS	4
2	PAFZZ		96906	MS51412-25	. WASHER, FLAT UOC: YJD	3
2A	PAFZZ		96906	MS51412-25	. WASHER, FLAT UOC: YJB.....	8
3	PAFZZ		80204	B1821BH031C075N	. BOLT, MACHINE UOC: YJD	4
3A	PAFZZ		80204	B1821BH031C100N	. BOLT, MACHINE UOC: YJB, EVR.....	4
4	XDFFF		97403	13229E7946	. BOX, ACCESSORY	1
5	PAFZZ		96906	MS20613-4P5	. . RIVET, SOLID	8
6	PAFZZ		83014	H2638-1	. . CATCH, CLAMPING	2
7	PAFZZ		96906	MS20427-4C6	. . RIVET, SOLID	7
8	PAFZZ		96906	MS27969-4	. . HASP, HINGED	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 03 ACCESSORIES - POWER PLANT FIRE EXTINGUISHER, OIL DRAIN AND GROUND WIRE

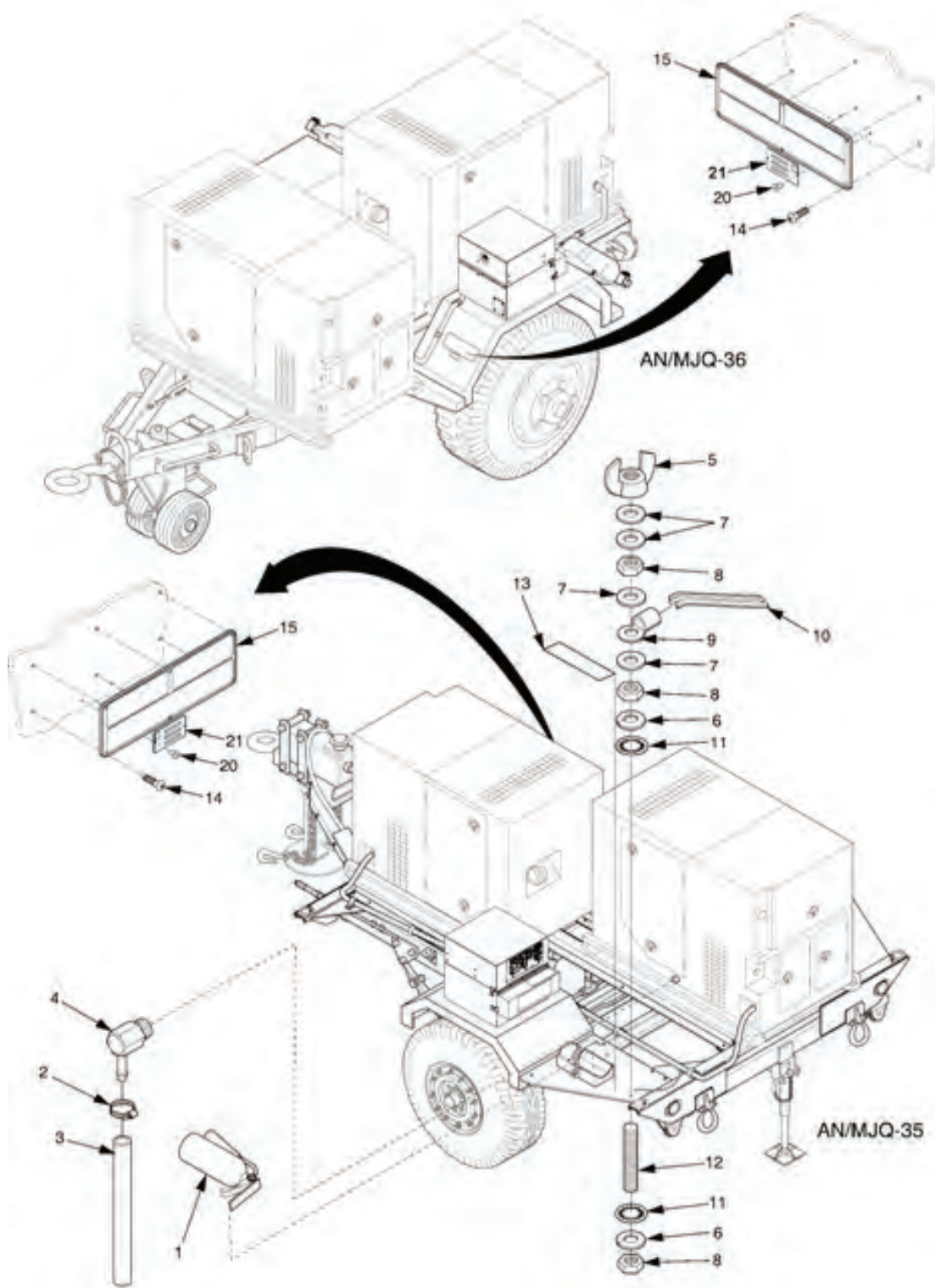


Figure 24. Power Plant Fire Extinguisher, Oil Drain and Ground Wire (Sheet 1 of 2).

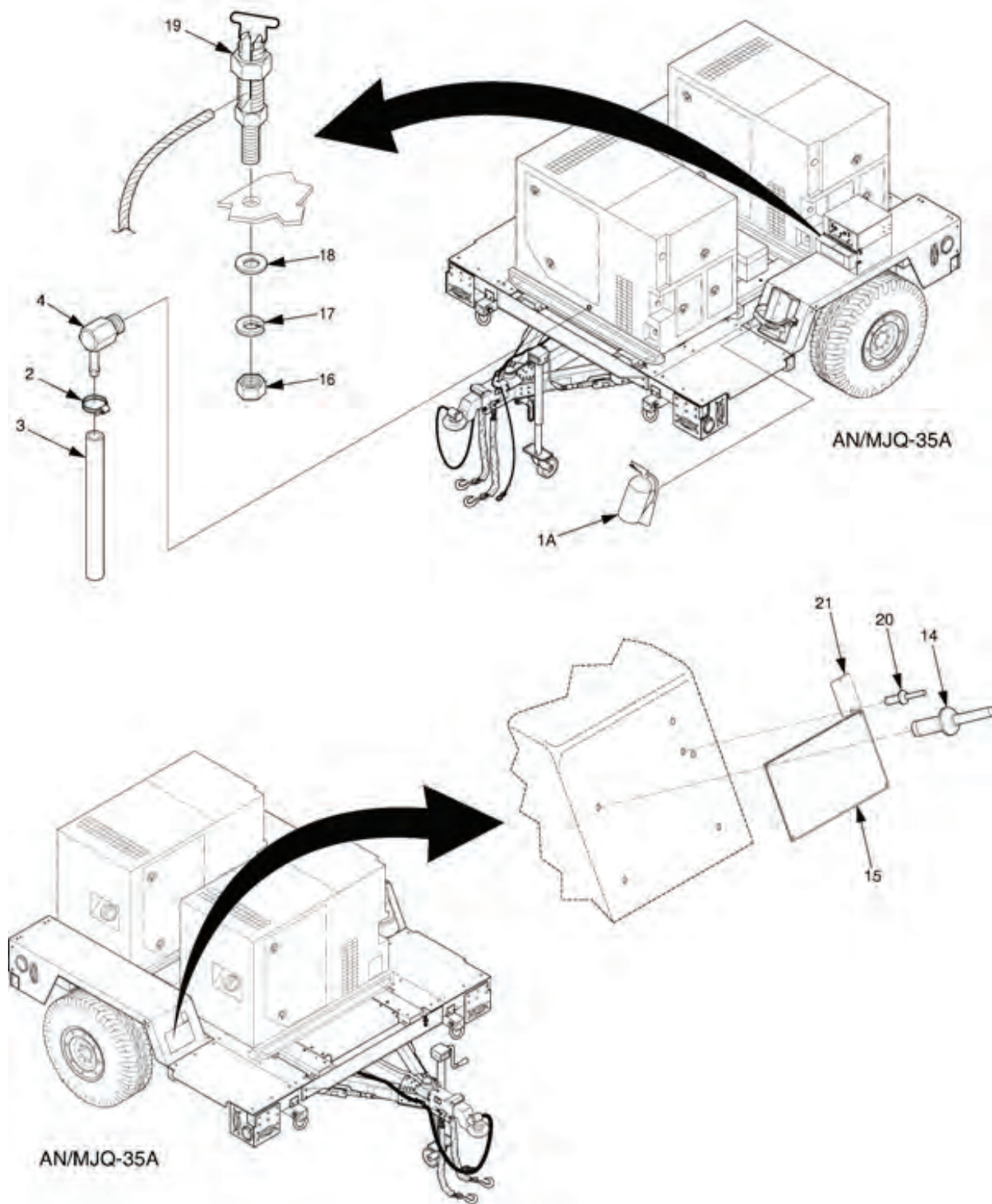


Figure 24. Power Plant Fire Extinguisher, Oil Drain and Ground Wire (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 24 POWER PLANT FIRE EXTINGUISHER, OIL DRAIN AND GROUND WIRE						
1	PAFZZ		58536	A-A-1106	. EXTINGUISHER, FIRE UOC: YJB, YJD	2
1A	PAFZZ		58536	A-A-1106	. EXTINGUISHER, FIRE UOC: YJC	1
2	PAFZZ		96906	MS35842-11	. CLAMP, HOSE UOC: YJB, YJD, YJC	1
3	MFFZZ		81349	M6000E00200	. HOSE, NONMETALLIC, 20 INCHES REQUIRED UOC: YJB, YJD, YJC	1
4	PAFZZ		96906	MS24519-7	. ELBOW, PIPE TO HOSE UOC: YJB, YJD, YJC	1
5	PAFZZ		96906	MS35425-75	. NUT, PLAIN, WING UOC: YJB, YJD	1
6	PAFZZ		96906	MS35338-103	. WASHER, LOCK UOC: YJB, YJD	2
7	PAFZZ		88044	AN961-616T	. WASHER, FLAT UOC: YJB, YJD	4
8	PAFZZ		96906	NS16203-27	. NUT, PLAIN, HEXAGON UOC: YJB, YJD	3
9	PAFZZ		96906	MS25036-122	. TERMINAL, LUG UOC: YJB, YJD	1
10	PAFZZ		81348	QQW343C06B1B	. WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: YJB, YJD, YJC	1
11	PAFZZ		96906	MS35333-110	. WASHER, LOCK UOC: YJB, YJD	2
12	PAFZZ		97403	13214E1223	. STUD, CONTINUOUS THR UOC: YJB, YJD	1
13	MDFZZ		97403	13205E4918	. PLATE, IDENTIFICATION UOC: YJB, YJD	1
14	PAFZZ		81349	M24243/1-B403	. RIVET, BLIND UOC: YJB, YJD	6
14	PAFZZ		07707	AD45ABS	. RIVET, BLIND UOC: YJC	4
15	MDFZZ		30554	13230E6561	. PLATE, IDENTIFICATION/SHIP- PING DATA UOC: YJC	2
15	MDFZZ		97403	13229E5666-1	. PLATE, IDENTIFICATION/ TRANSPORTATION DATA UOC: YJD	2
15	MDFZZ		97403	13229E5666-2	. PLATE, IDENTIFICATION/ TRANSPORTATION DATA UOC: YJB	1
16	PAFZZ		96906	MS35691-3	. NUT, PLAIN, HEXAGON UOC: YJC	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
17	PAFZZ		96906	MS35338-158	. WASHER, LOCK UOC: YJC	1
18	PAFZZ		96906	MS15795-810	. WASHER, FLAT UOC: YJC	1
19	PAFZZ		96906	MS39347-2	. TERMINAL POST, SERVICE AND GROUND UOC: YJC	1
20	PAFZZ	5320-00-954-9568	97403	13230E7022-4-3	. RIVET, BLIND, UNIVERSAL UOC: YFS, YJB, YJC, YJD, EVR.....	6
21	MFFZZ		97403	13230E7022-25	. PLATE, IDENTIFICATION UOC: YJD	1
21	MFFZZ		97403	13230E7022-26	. PLATE, IDENTIFICATION UOC: YJC	1
21	MFFZZ		97403	13230E7022-27	. PLATE, IDENTIFICATION UOC: YJB.....	1

END OF FIGURE

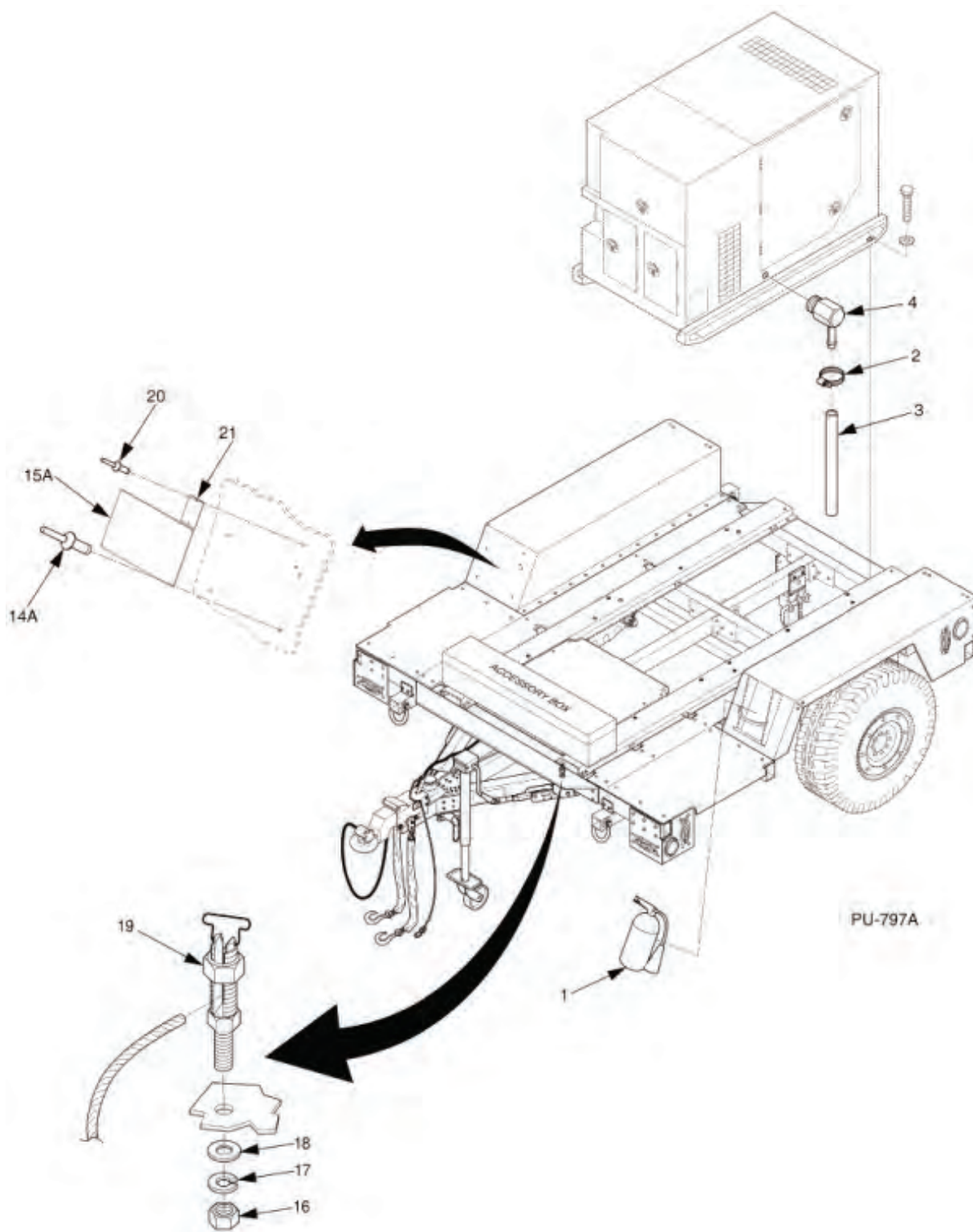


Figure 25. Power Unit Fire Extinguisher, Oil Drain and Ground Wire (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 25 POWER UNIT FIRE EXTINGUISHER, OIL DRAIN AND GROUND WIRE						
1	PAFZZ		58536	A-A-1106	. EXTINGUISHER, FIRE UOC: EVR, YFS	1
2	PAFZZ		96906	MS35842-11	. CLAMP, HOSE UOC: EVR, YFS	1
3	MFFZZ		81349	M6000E00200	. HOSE, NONMETALLIC, 20 IN. REQUIRED UOC: EVR, YFS	1
4	PAFZZ		96906	MS24519-7	. ELBOW, PIPE TO HOSE UOC: EVR, YFS	1
5	PAFZZ		96906	MS35425-75	. NUT, PLAIN, WING UOC: EVR	1
6	PAFZZ		96906	MS35338-103	. WASHER, LOCK UOC: EVR	2
7	PAFZZ		88044	AN961-616T	. WASHER, FLAT UOC: EVR	4
8	PAFZZ		96906	NS16203-27	. NUT, PLAIN, HEXAGON UOC: EVR	3
9	PAFZZ		96906	MS25036-122	. TERMINAL, LUG UOC: EVR	1
10	MFFZZ		81348	QQW343C06B1B	. WIRE, ELECTRICAL, MAKE AS REQUIRED UOC: EVR, YFS	1
11	PAFZZ		96906	MS35333-110	. WASHER, LOCK UOC: EVR	2
12	PAFZZ		97403	13214E1223	. STUD, CONTINUOUS THR UOC: EVR	1
13	MDFZZ		97403	13205E4918	. PLATE, IDENTIFICATION UOC: EVR	1
14	PAFZZ		81349	M24243/1-B403	. RIVET, BLIND UOC: EVR	6
14A	PAFZZ		07707	AD45ABS	. RIVET, BLIND UOC: YFS	4
15	MDFZZ		97403	13229E5666-13	. PLATE, IDENTIFICATION/ TRANSPORTATION DATA UOC: EVR	1
15A	MDFZZ		30554	13230E6521	. PLATE, IDENTIFICATION/SHIP- PING DATA UOC: YFS	1
16	PAFZZ		96906	MS35691-3	. NUT, PLAIN, HEXAGON UOC: YFS	1
17	PAFZZ		96906	MS35338-158	. WASHER, LOCK UOC: YFS	1
18	PAFZZ		96906	MS15795-810	. WASHER, FLAT UOC: YFS	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
19	PAFZZ		96906	MS39347-2	. TERMINAL POST, SERVICE AND GROUND UOC: YFS	1
20	PAFZZ	5320-00-954-9568	97403	13230E7022-4-3	. RIVET, BLIND, UNIVERSAL UOC: YFS, YJB, YJC, YJD, EVR.....	4
21	MFFZZ		97403	13230E7022-05	. PLATE, IDENTIFICATION UOC: EVR	1
21	MFFZZ		97403	13230E7022-06	. PLATE, IDENTIFICATION UOC: YFS	1

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

GROUP 03 ACCESSORIES - PLATFORMS

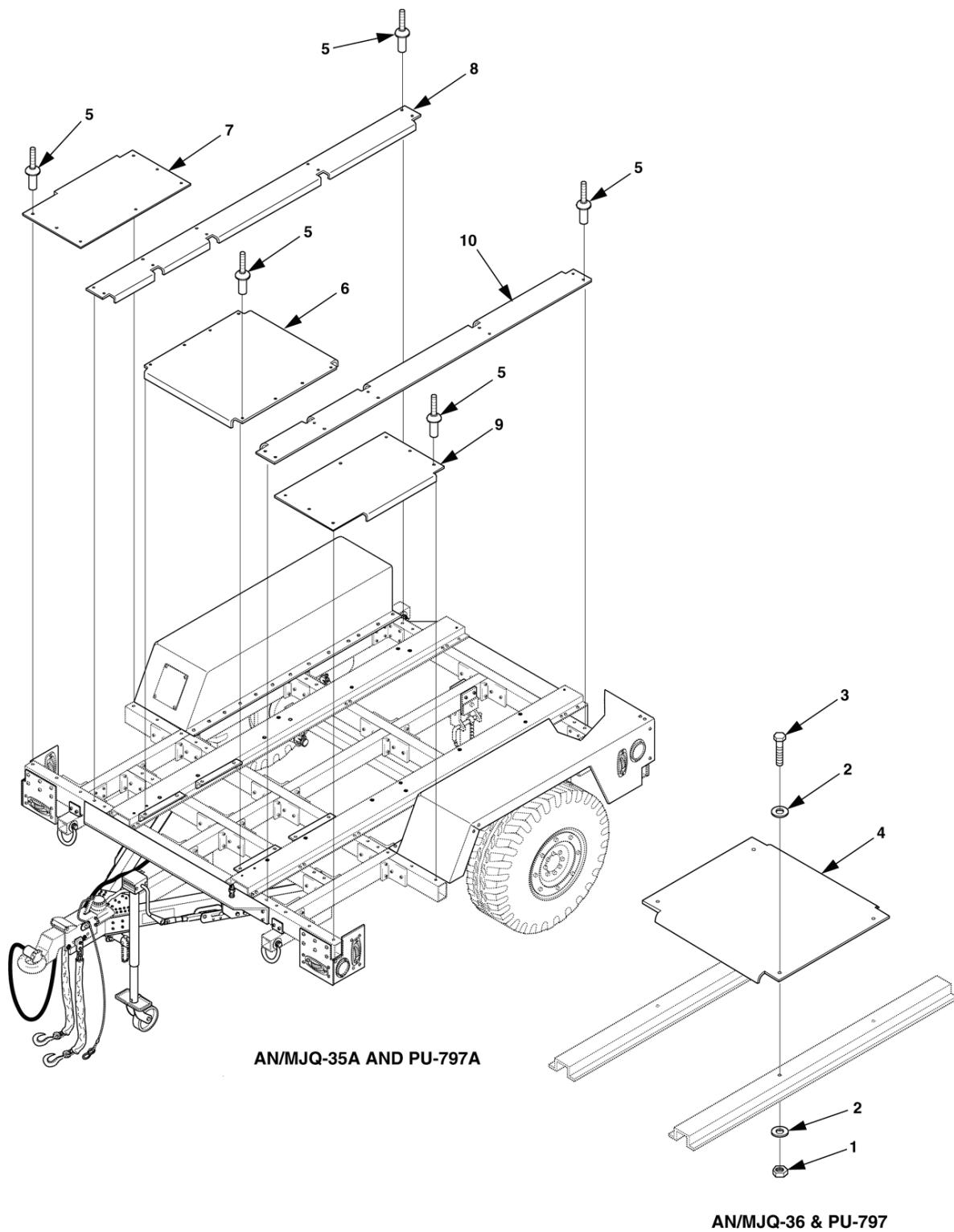


Figure 26. Platforms.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 03 ACCESSORIES						
FIG. 26 PLATFORMS						
1	PAFZZ		96906	MS51922-17	. NUT, SELF-LOCKING, HEXAGON UOC: YJB, EVR.....	4
2	PAFZZ		96906	MS51412-7	. WASHER, FLAT UOC: YJB, EVR.....	8
3	PAFZZ		80204	B1821BH038C100N	. SCREW, CAP, HEXAGON H UOC: YJB, EVR.....	4
4	XDFZZ		97403	13229E9621-1	. PLATFORM UOC: YJB, EVR.....	1
5	PAFZZ		17446	MGLP-R8-10	. RIVET, STEEL SHANK UOC: YJC, YFS.....	42
6	XDFZZ		30554	13230E6568	. FLOOR, CENTER UOC: YJC, YFS.....	1
7	XDFZZ		30554	13230E6567-1	. FLOOR, SIDE, RH UOC: YJC, YFS.....	1
8	XDFZZ		30554	13230E6564-1	. FLOOR, SIDE, INNER, RH UOC: YJC, YFS.....	1
9	XDFZZ		30554	13230E6567-2	. FLOOR, SIDE, LH UOC: YJC, YFS.....	1
10	XDFZZ		30554	13230E6564-2	. FLOOR, SIDE, INNER, LH UOC: YJC, YFS.....	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

GROUP 04 TRAILER ASSEMBLY - POWER PLANT/POWER UNIT TRAILER ASSEMBLY

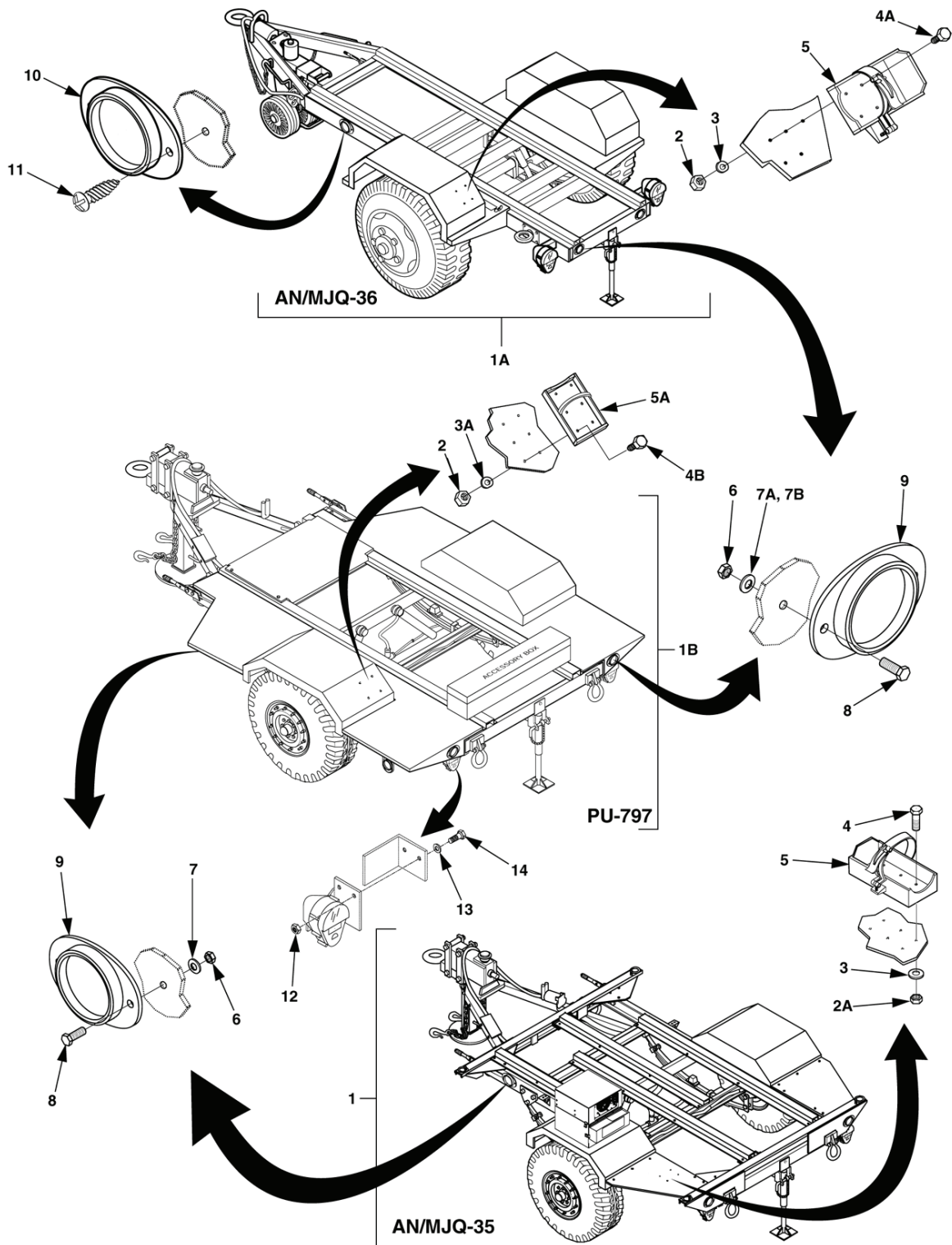


Figure 27. Power Plant/Power Unit Trailer Assembly (Sheet 1 of 2).

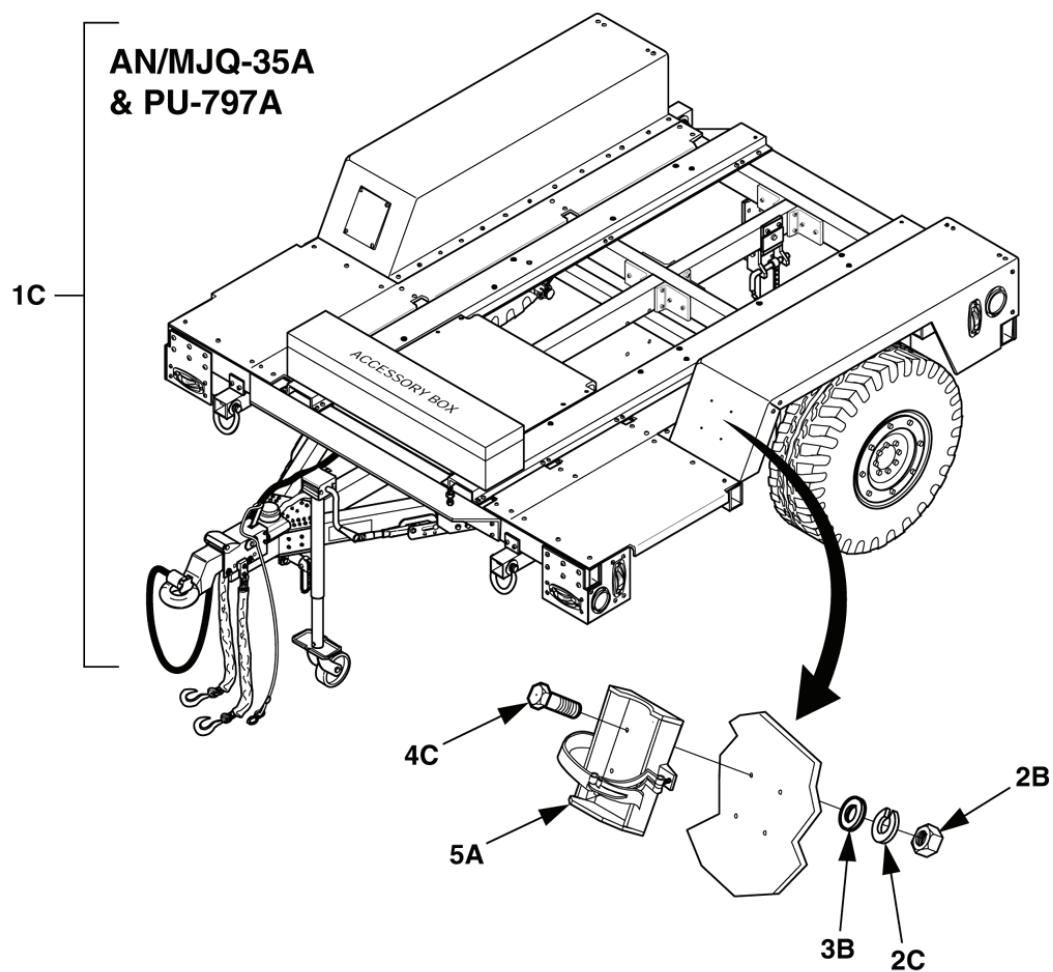


Figure 27. Power Plant/Power Unit Trailer Assembly (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 27 POWER PLANT/POWER UNIT TRAILER ASSEMBLY						
1	XCFFF		19099	13229E5650-TLR	TRAILER ASSEMBLY UOC: YJD	1
1A	PBFFF		97403	13229E5825	TRAILER ASSEMBLY UOC: YJB.....	1
1B	PBFFF		97403	13229E5749-1	TRAILER ASSEMBLY UOC: EVR	1
1C	PBFFF		30554	13230E6565	TRAILER ASSEMBLY UOC: YJC, YFS	1
2	PAFZZ		96906	MS51922-17	. NUT, SELF-LOCKING, HE UOC: YJB, YJD	8
2A	PAFZZ		96906	MS51922-17	. NUT, SELF-LOCKING, HE UOC: EVR	4
2B	PAFZZ		96906	MS35650-3384	. NUT, PLAIN, HEXAGON UOC: YJC, YFS	4
2C	PAFZZ		96906	MS35338-141	. WASHER, LOCK UOC: YJC, YFS	4
3	PAFZZ		96906	MS51412-7	. WASHER, FLAT UOC: YJB, YJD	8
3A	PAFZZ		96906	MS51412-27	. WASHER, FLAT UOC: EVR	4
3B	PAFZZ		96906	MS15795-813	. WASHER, FLAT UOC: YJC, YFS	8
4	PAFZZ		96906	B1821BH038C100N	. SCREW, CAP, HEXAGON H UOC: YJD	8
4A	PAFZZ		96906	B1821BH038C100N	. SCREW, CAP, HEXAGON H UOC: YJB.....	8
4B	PAFZZ		96906	B1821BH038C075N	. SCREW, CAP, HEXAGON H UOC: EVR	4
4C	PAFZZ		96906	MS35308-360	. SCREW, CAP, HEXAGON H UOC: YJC, YFS	4
5	PAFZZ		97403	13214E1235	. BRACKET, FIRE EXTING UOC: YJB, YJD	2
5A	PAFZZ		97403	13214E1235	. BRACKET, FIRE EXTING UOC: EVR, YJC, YFS	1
6	PAFZZ		96906	MS51922-1	. NUT, SELF-LOCKING, HE UOC: YJD, EVR.....	12
6	PAFZZ		96906	MS51922-1	. NUT, SELF-LOCKING, HE UOC: YJB.....	8
7	PAFZZ		96906	MS51412-23	. WASHER, FLAT UOC: YJD	12
7A	PAFZZ		96906	MS51412-4	. WASHER, FLAT UOC: YJB.....	8
7B	PAFZZ		96906	MS51412-4	. WASHER, FLAT UOC: EVR	12
8	PAFZZ		80204	B1821BH025C088N	. SCREW, CAP, HEXAGON H UOC: YJD, EVR.....	12

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
8	PAFZZ		80204	B1821BH025C075N	. SCREW, CAP, HEXAGON H UOC: YJB.....	8
9	PAFZZ		96906	MS35387-1	. REFLECTOR, INDICATING RED UOC: YJB, YJD, EVR	4
10	PAFZZ		96906	MS35387-2	. REFLECTOR, INDICATING AMBER UOC: YJB, YJD, EVR	2
11	PAFZZ		96906	MS51861-37	. SCREW, TAPPING UOC: YJB.....	4
12	PAFZZ		97403	13230E6382-6	. NUT, SELF-LOCKING, HEXAGON UOC: EVR	4
13	PAFZZ		30554	88-20033-31A	. WASHER, FLAT UOC: EVR	4
14	PAFZZ		80204	ANS-B18.2.1	. SCREW, HEX HEAD UOC: EVR	4

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 04 TRAILER ASSEMBLY - SPLASH GUARD

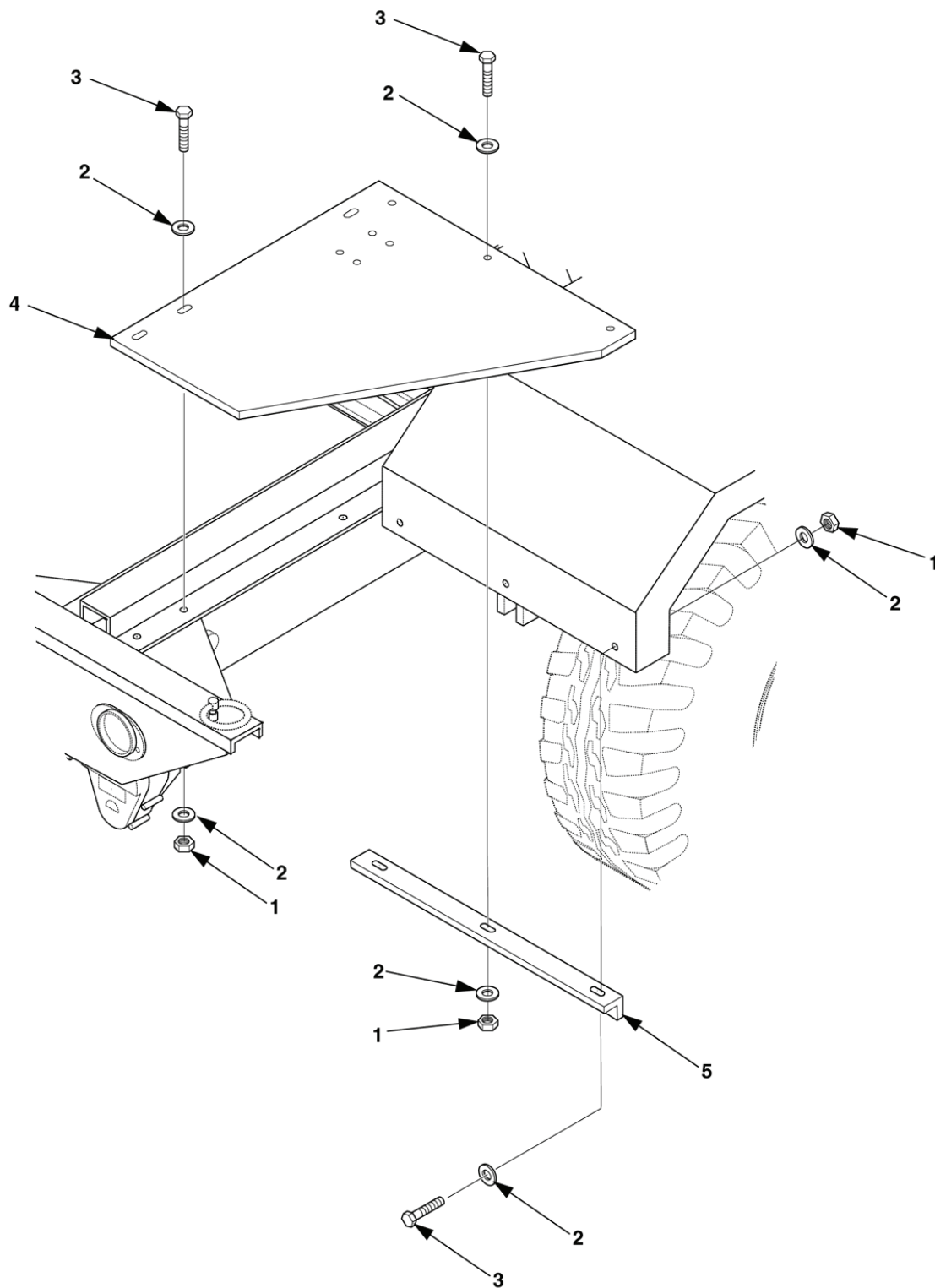


Figure 28. Splash Guard.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 28 SPLASH GUARD						
1	PAFZZ		96906	MS51922-17	NUT, SELF-LOCKING, HEXAGON UOC: YJD	18
2	PAFZZ		96906	MS51412-27	WASHER, FLAT UOC: YJD	36
3	PAFZZ		80204	B1821BH038C150N	SCREW, CAP, HEXAGON H UOC: YJD	18
4	XDFZZ		97403	13229E9619-1	GUARD, SPLASH UOC: YJD	2
5	XDFZZ		88900	22806-000-00	BRACKET, SPLASH GUARD UOC: YJD	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 04 TRAILER ASSEMBLY - FENDERS, RAILS, LIFTING RINGS AND BRACKETS, 1 TON TRAILER,
AN/MJQ-35

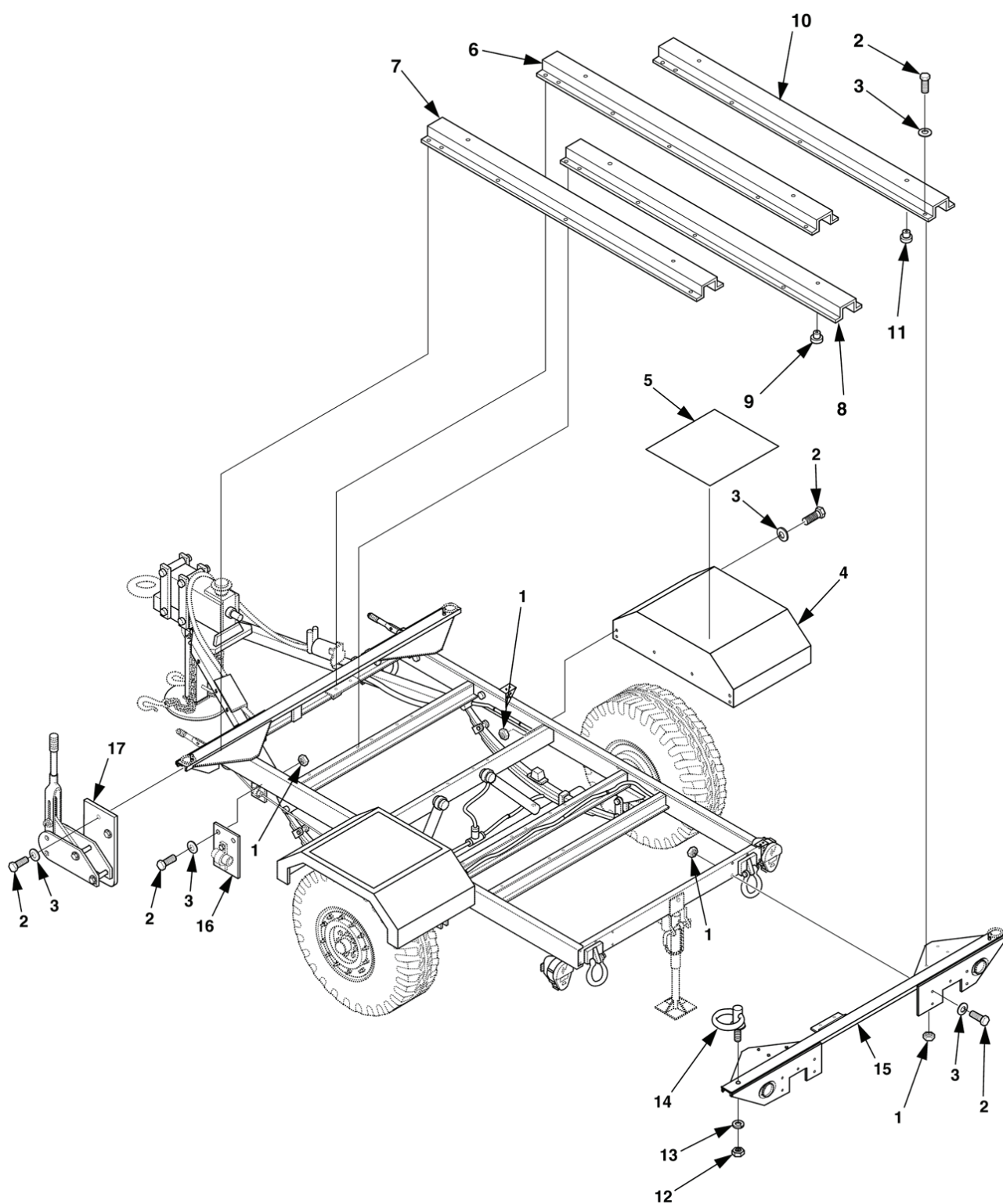


Figure 29. Fenders, Rails, Lifting Rings and Brackets, 1 Ton Trailer, AN/MJQ-35.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 29 FENDERS, RAILS, LIFTING RINGS AND BRACKETS, 1 TON TRAILER, AN/MJQ-35						
1	PAFZZ		96906	MS51922-17	NUT, SELF-LOCKING, HE UOC: YJD	74
2	PAFZZ		80204	B1821BH038C150N	SCREW, CAP, HEXAGON H UOC: YJD	74
3	PAFZZ		96906	MS51412-7	WASHER, FLAT UOC: YJD	74
4	XDFFF		97403	13229E9622	FENDER UOC: ESQ	2
5	MFFZZ		19099	13229E9622-3	DECK COVERING MAKE FROM P/ N 22806-000-00 (88900), AS REQUIRED UOC: YJD	1
6	XDFZZ		97403	13229E9625	RAIL, MOUNTING, REAR GENER- ATOR, ROADSIDE UOC: YJD	1
7	XDFZZ		97403	13229E9623	RAIL, MOUNTING, FORWARD GENERATOR, ROADSIDE UOC: YJD	1
8	PAFZZ		96906	MS27130-CR68	NUT, BLIND RIVET UOC: YJD	1
9	XDFZZ		97403	13229E9626	RAIL, MOUNTING, REAR GENER- ATOR, CURBSIDE UOC: YJD	1
10	XDFZZ		97403	13229E9624	RAIL, MOUNTING, FORWARD GENERATOR, CURBSIDE UOC: YJD	1
11	PAFZZ		96906	MS27130-CR68	NUT, BLIND RIVET UOC: YJD	1
12	PAFZZ		96906	MS51968-23	NUT, PLAIN, HEXAGON UOC: YJD	4
13	PAFZZ		96906	MS51412-13A	WASHER, FLAT UOC: YJD	4
14	PAFZZ		97403	13229E9629-3	RING, LIFTING UOC: YJD	4
15	XDFZZ		97403	13229E9627	BRACKET, LIFTING UOC: YJD	2
16	XDFZZ		97403	13229E2308	PLATE, RELOCATING UOC: YJD	2
17	XDFZZ		97403	13229E9628	BRACKET, BRAKE RELOCATING UOC: YJD	2

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
GROUP 04 TRAILER ASSEMBLY - 1 ½ TON TRAILER, AN/MJQ-36 FENDER

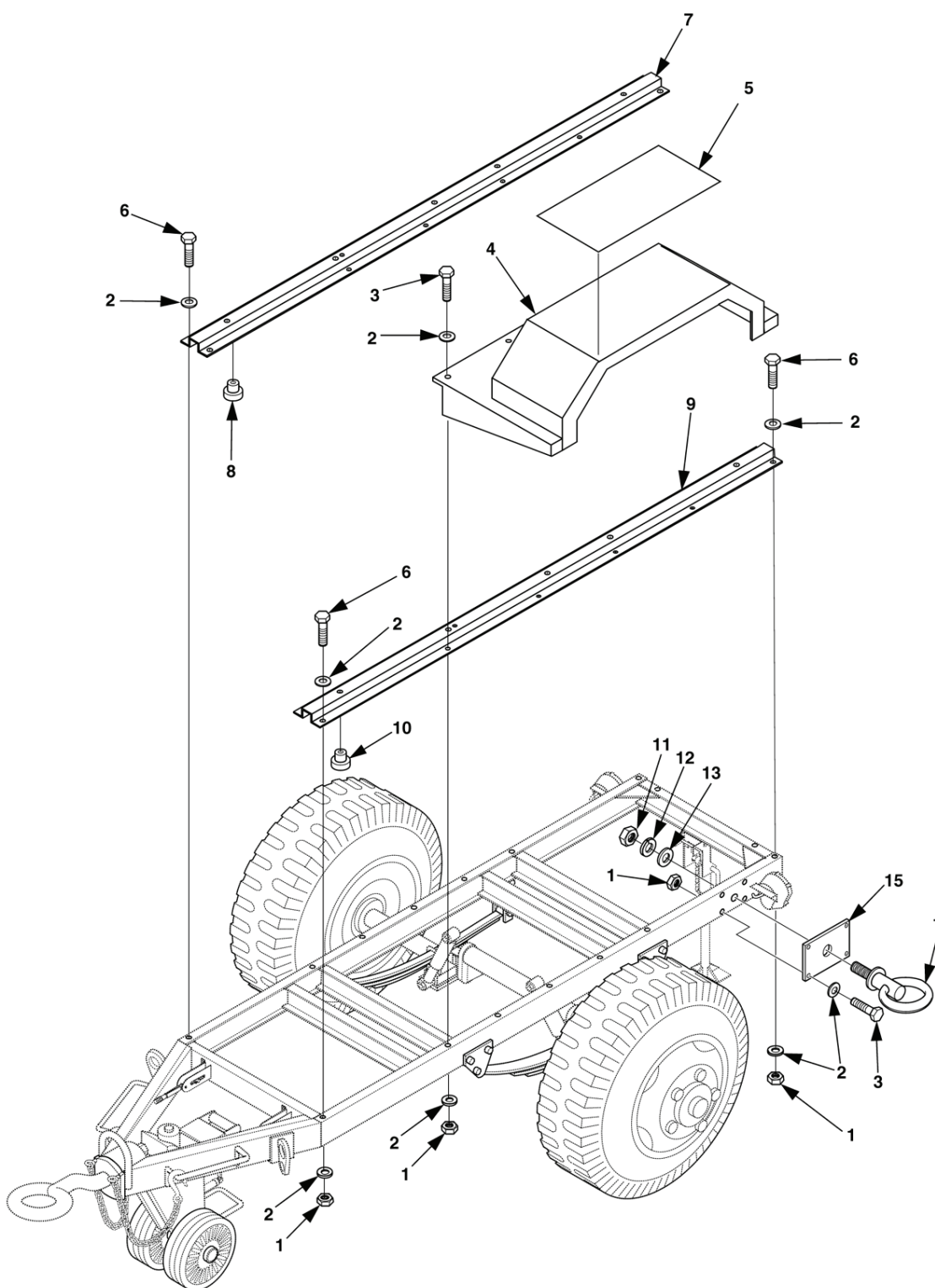


Figure 30. 1 1/2 Ton Trailer, AN/MJQ-36 Fender.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 30 1 ½ TON TRAILER, AN/MJQ-36 FENDER						
1	PAFZZ		96906	MS51922-17	NUT, SELF-LOCKING, HE UOC: YJB.....	42
2	PAFZZ		96906	MS51412-7	WASHER, FLAT UOC: YJB.....	76
3	PAFZZ		80204	B1821BH038C125N	SCREW, CAP, HEXAGON, H UOC: YJB.....	38
4	XDFFF		97403	13229E5817	FENDER UOC: YJB.....	2
5	MFFZZ		19099	13229E5817-6	DECK COVERING MAKE FROM P/ N 22806-000-00 (88900), AS REQUIRED UOC: YJB.....	16
6	PAFZZ		80204	B1821BH038C600N	SCREW, CAP, HEXAGON UOC: YJB.....	4
7	XDFFF		97403	13229E5677	RAIL, MOUNTING, CURBSIDE UOC: YJB.....	1
8	PAFZZ		96906	MS27130-CR68	NUT, BLIND RIVET UOC: YJB.....	1
9	XDFFF		97403	13229E5748	RAIL, MOUNTING, ROADSIDE UOC: YJB.....	1
10	PAFZZ		96906	MS27130-CR68	NUT, BLIND RIVET UOC: YJB.....	1
11	PAFZZ		96906	MS51968-23	NUT, PLAIN, HEXAGON UOC: YJB.....	2
12	PAFZZ		96906	MS51415-11	WASHER, LOCK UOC: YJB.....	2
13	PAFZZ		96906	MS51412-13	WASHER, FLAT UOC: YJB.....	2
14	PAFZZ		97403	13229E9629-4	RING, LIFTING UOC: YJB.....	2
15	XDFZZ		97403	13229E5818	BRACKET, TIEDOWN UOC: YJB.....	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 04 TRAILER ASSEMBLY - FENDERS, 1 TON TRAILER, PU-797

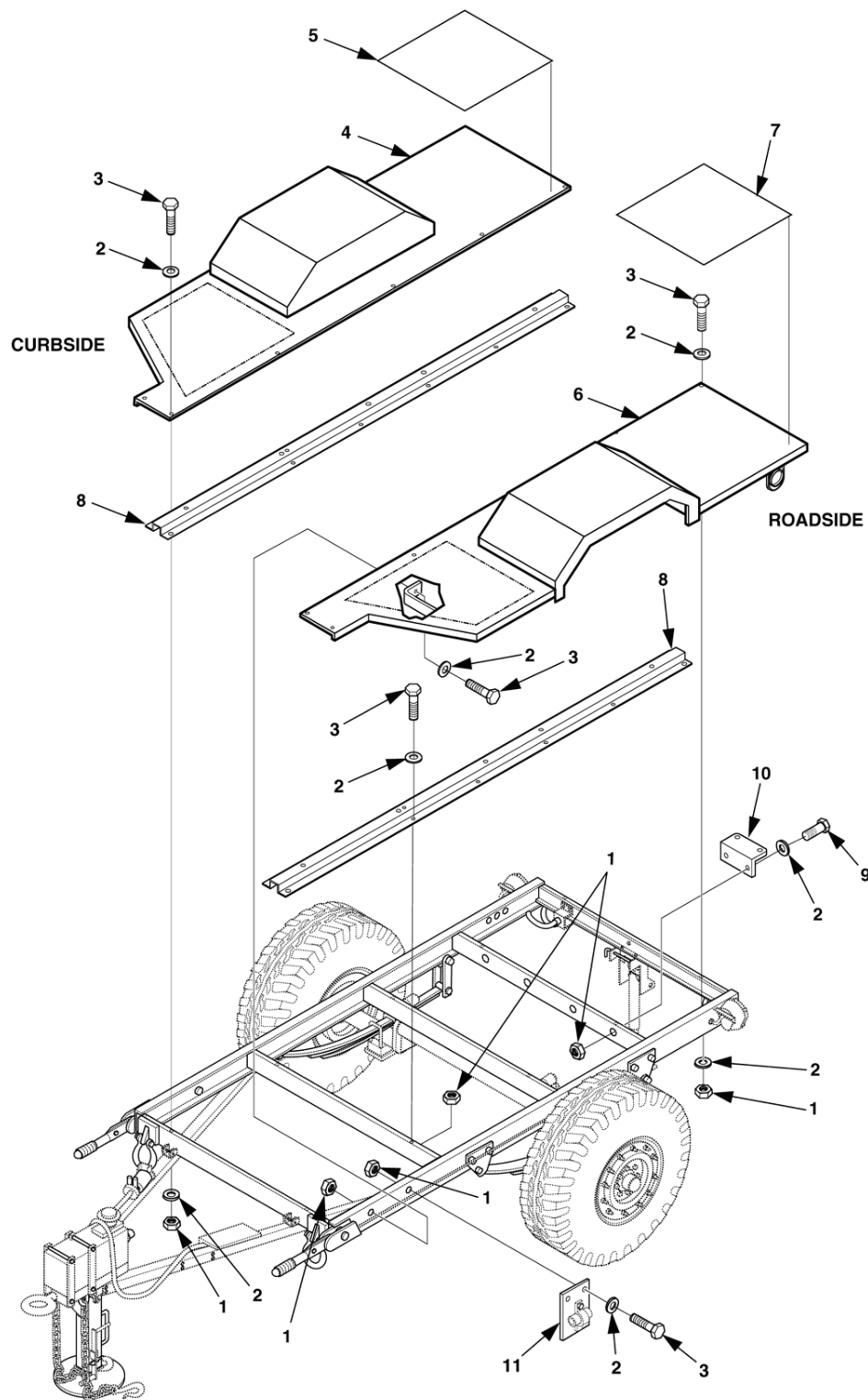


Figure 31. Fenders, 1 Ton Trailer, PU-797.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 31 FENDERS, 1 TON TRAILER, PU-797						
1	PAFZZ		96906	MS51922-17	. NUT, SELF-LOCKING, HEXAGON UOC: EVR	60
2	PAFZZ		96906	MS51412-27	. WASHER, FLAT UOC: EVR	104
3	PAFZZ		80204	B1821BH038C150N	. SCREW, CAP, HEXAGON H UOC: EVR	56
4	XDFFF		97403	13229E9619-1	. FENDER, CURBSIDE UOC: EVR	1
5	MFFZZ		88900	22806-000-00	. . DECK COVERING MAKE, AS REQUIRED UOC: EVR	1
6	XDFFF		97403	13229E9620-1	. FENDER, ROADSIDE UOC: EVR	1
7	MFFZZ		88900	22806-000-00	. . DECK COVERING MAKE, AS REQUIRED UOC: EVR	1
8	XDFZZ		97403	13229E5743-1	. RAIL, MOUNTING UOC: EVR	2
9	PAFZZ		80204	B1821BH038C225N	. SCREW, CAP, HEXAGON H UOC: EVR	4
10	XDFZZ		97403	13229E5758	. BRACKET, RAIL MOUNTING UOC: EVR	2
11	XDFZZ		97403	13229E2308	. PLATE, ELOCATING UOC: EVR	2
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

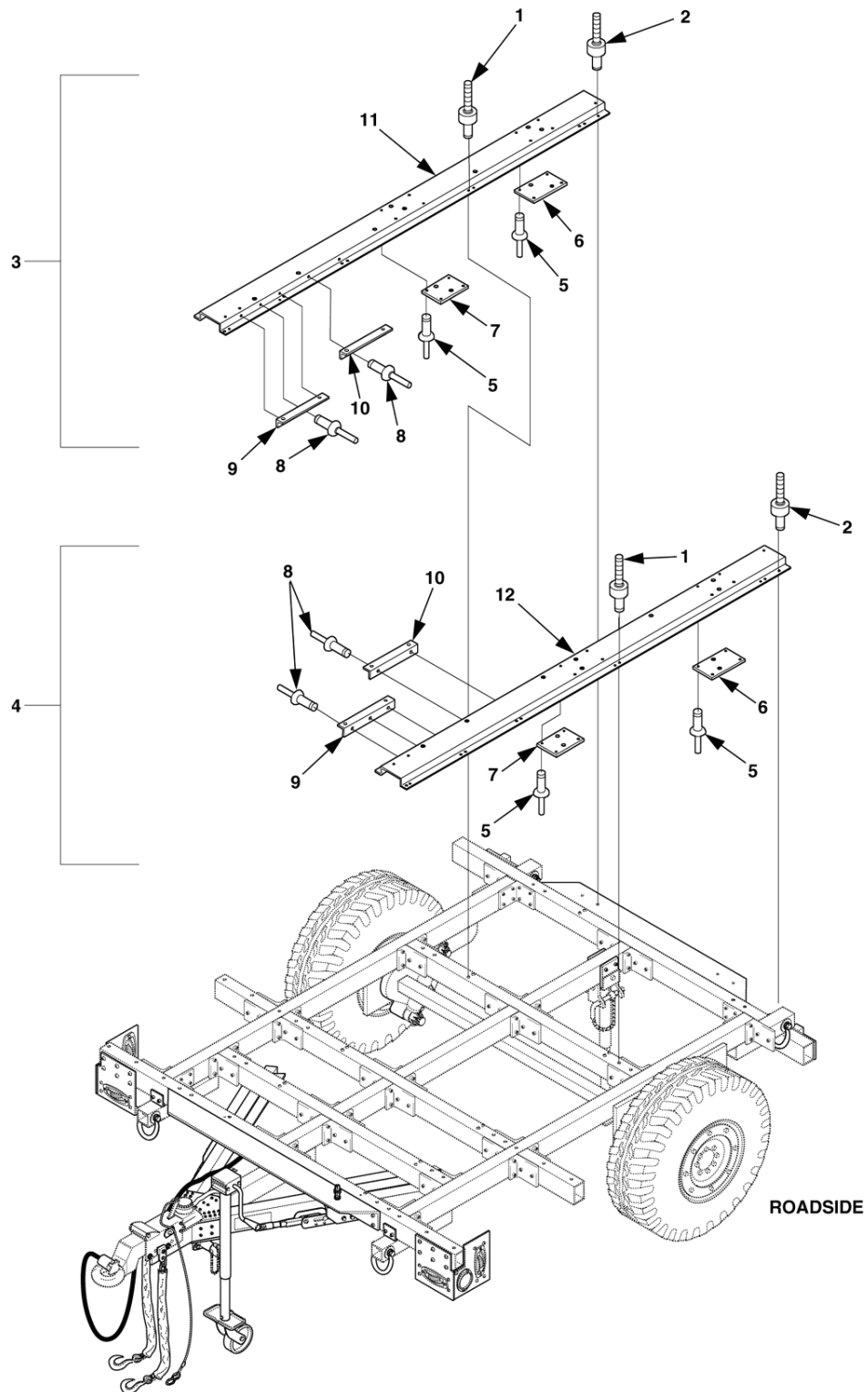
GROUP 04 TRAILER ASSEMBLY - LIGHT TACTICAL TRAILER, MOUNTING RAILS AND FENDERS,
(AN/MJQ-35A AND PU-797A)

Figure 32. Light Tactical Trailer, Mounting Rails and Fenders, (AN/MJQ-35A and PU-797A) (Sheet 1 of 2).

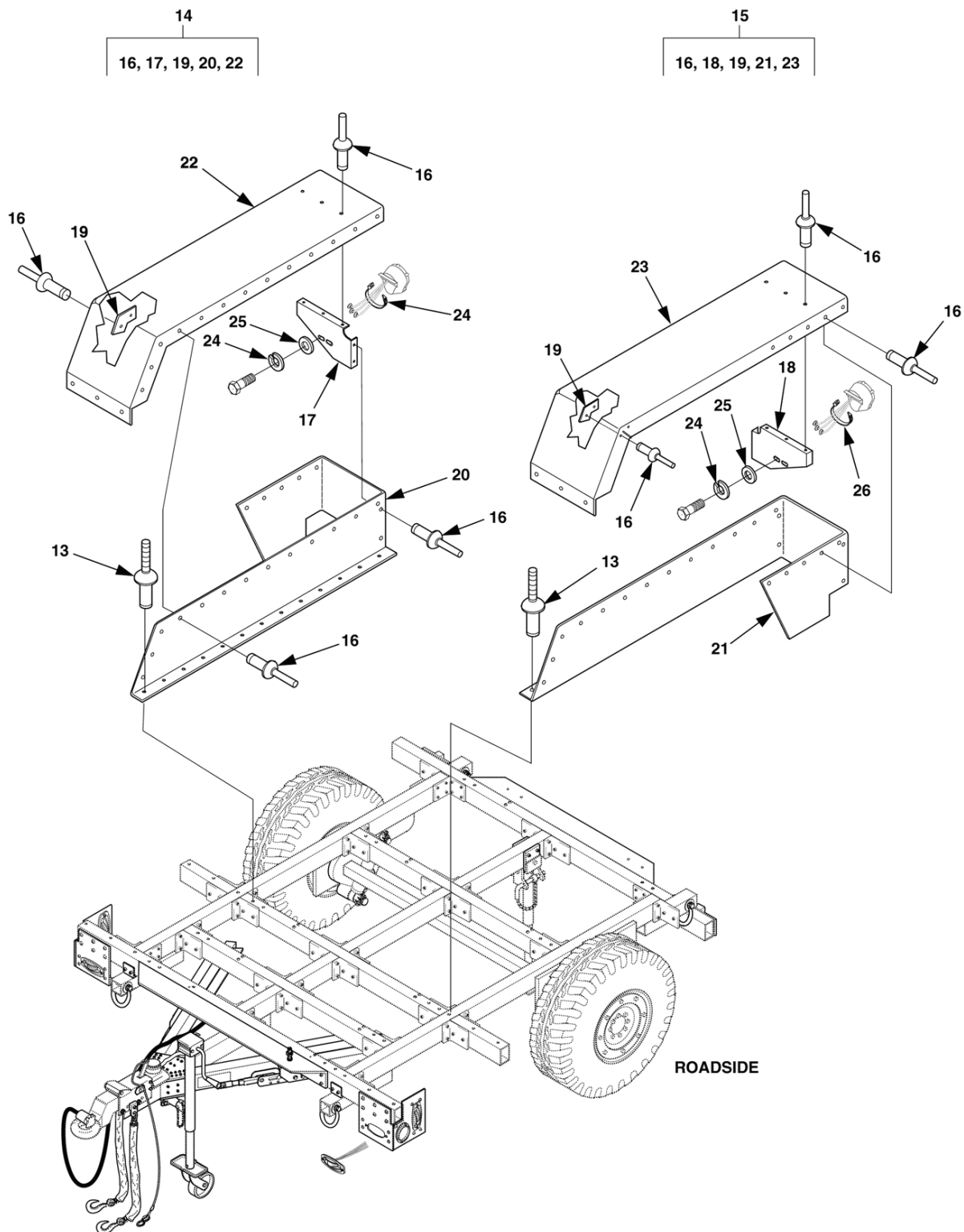


Figure 32. Light Tactical Trailer, Mounting Rails and Fenders, (AN/MJQ-35A and PU-797A) (Sheet 2 of 2).

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 32 LIGHT TACTICAL TRAILER, MOUNTING RAILS AND FENDERS, (AN/MJQ-35A AND PU-797A)						
1	PAFZZ		9K475	BOM-R8-8	. RIVET, BLIND UOC: YJC, YFS	40
2	PAFZZ		9K475	BOM-R8-10	. RIVET, BLIND UOC: YJC, YFS	4
3	XDFFF		30554	13230E6569-1	. RAIL ASSY, MTG, RH UOC: YJC, YFS	1
4	XDFFF		30554	13230E6569-2	. RAIL ASSY, MTG, LH UOC: YJC, YFS	1
5	PAFZZ		17446	MGL100-R6-9	. . RIVET, BLIND UOC: YJC, YFS	16
6	XDFZZ		30554	13230E6527	. . PLATE, DOUBLER, MTG R UOC: YJC, YFS	2
7	XDFZZ		30554	13230E6576	. . PLATE, DOUBLER, MTG R UOC: YJC, YFS	2
8	PAFZZ		17446	MGLP-R8-10	. . RIVET, BLIND UOC: YJC, YFS	10
9	XDFZZ		30554	13230E6577	. . ANGLE, SUPPORT, MTG R UOC: YJC, YFS	2
10	XDFZZ		30554	13230E6526	. . ANGLE, SUPPORT, MTG R UOC: YJC, YFS	2
11	XDFZZ		30554	13230E6578-1	. . RAIL, MOUNTING GEN, R-H UOC: YJC, YFS	1
12	XDFZZ		30554	13230E6578-2	. . RAIL, MOUNTING GEN, L-H UOC: YJC, YFS	1
13	PAFZZ		17446	MGLP-R8-6	. RIVET, STEEL SHANK UOC: YJC, YFS	38
14	XDFFF		30554	13230E6571-1	. FENDER, ASSEMBLY, RH UOC: YJC, YFS	1
15	XDFFF		30554	13230E6571-2	. FENDER, ASSEMBLY, LH UOC: YJC, YFS	1
16	PAFZZ		17446	MGLP-R8-6	. . RIVET, STEEL SHANK UOC: YJC, YFS	58
17	XDFZZ		30554	13230E6582-1	. . BRACKET, INSIDE FENDER UOC: YJC, YFS	1
18	XDFZZ		30554	13230E6582-2	. . BRACKET, INSIDE FENDER UOC: YJC, YFS	1
19	XDFZZ		30554	13230E6579	. . ANGLE, SUPPORT, FENDER UOC: YJC, YFS	2
20	XDFZZ		30554	13230E6583-1	. . FENDER, SIDE, TRAILER UOC: YJC, YFS	1
21	XDFZZ		30554	13230E6583-2	. . FENDER, SIDE, TRAILER UOC: YJC, YFS	1
22	XDFZZ		30554	13230E6580-1	. . FENDER, TOP, TRAILER UOC: YJC, YFS	1

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
23	XDFZZ		30554	13230E6580-2	. . FENDER, TOP, TRAILER UOC: YJC, YFS	1
24	PAFZZ		96906	MS35338-141	. WASHER, LOCK UOC: YJC, YFS	4
25	PAFZZ		96906	MS15795-813	. WASHER, FLAT UOC: YJC, YFS	4
26	PAFZZ		96906	MS3367-1-0	. STRAP, TIEDOWN, ELECT UOC: YJC, YFS	4

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
GROUP 04 TRAILER ASSEMBLY - JACK LEVELING-SUPPORT ASSEMBLY

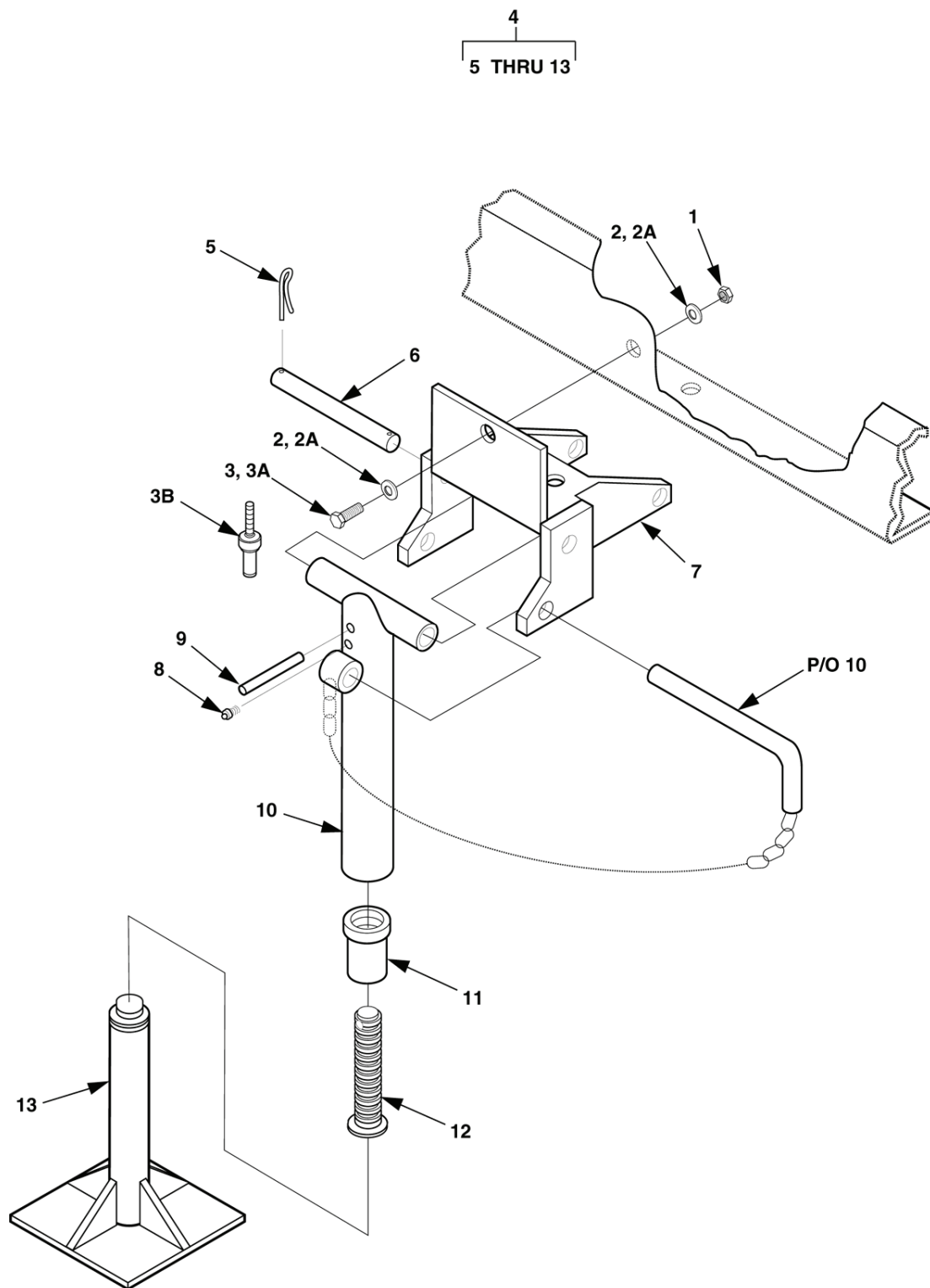


Figure 33. Jack Leveling-Support Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 33 JACK LEVELING-SUPPORT ASSEMBLY						
1	PAFZZ		96906	MS51922-17	. NUT, SELF-LOCKING, HE UOC: YJB, YJD, EVR	3
2	PAFZZ		96906	MS51412-7	. WASHER, FLAT UOC: YJB, YJD	6
2A	PAFZZ		96906	MS51412-27	. WASHER, FLAT UOC: EVR	6
3	PAFZZ		80208	B1821BH038C150N	. SCREW, CAP, HEXAGON H UOC: YJD, EVR	3
3A	PAFZZ		80204	B1821BH038C125N	. SCREW, CAP, HEXAGON H UOC: YJB	3
3B	PAFZZ		17446	BOM-R12-8	. RIVET BLIND UOC: YJC, YFS	3
4	PAFFF		97403	13214E1206-1	. JACK, LEVELING-SUPPORT UOC: YJB, YJD, EVR	1
4	PAFFF		97403	13214E1206-2	. JACK, LEVELING-SUPPORT UOC: YJC, YFS	1
5	PAFZZ		96906	MS24665-353	. . PIN, COTTER	2
6	PBFZZ		97403	13214E1209	. . PIN, STRAIGHT, HEADLESS	1
7	XAFZZ		97403	13214E1207	. . BRACKET	1
8	PAFZZ		96906	MS15006-1	. . FITTING, LUBRICATION	1
9	PAFZZ		96906	MS16562-66	. . PIN, SPRING	1
10	XAFZZ		97403	13214E1208-1	. . CHAIN, PIN RETAINING	1
11	XAFZZ		97403	13214E1211	. . NUT, SLEEVE	1
12	XAFZZ		97403	13214E1210	. . SCREW	1
13	PBFZZ		97403	13214E1212-1	. . SUPPORT BASE, LEG	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 04 TRAILER ASSEMBLY - POWER PLANT/POWER UNIT TRAILER CHASSIS ASSEMBLY

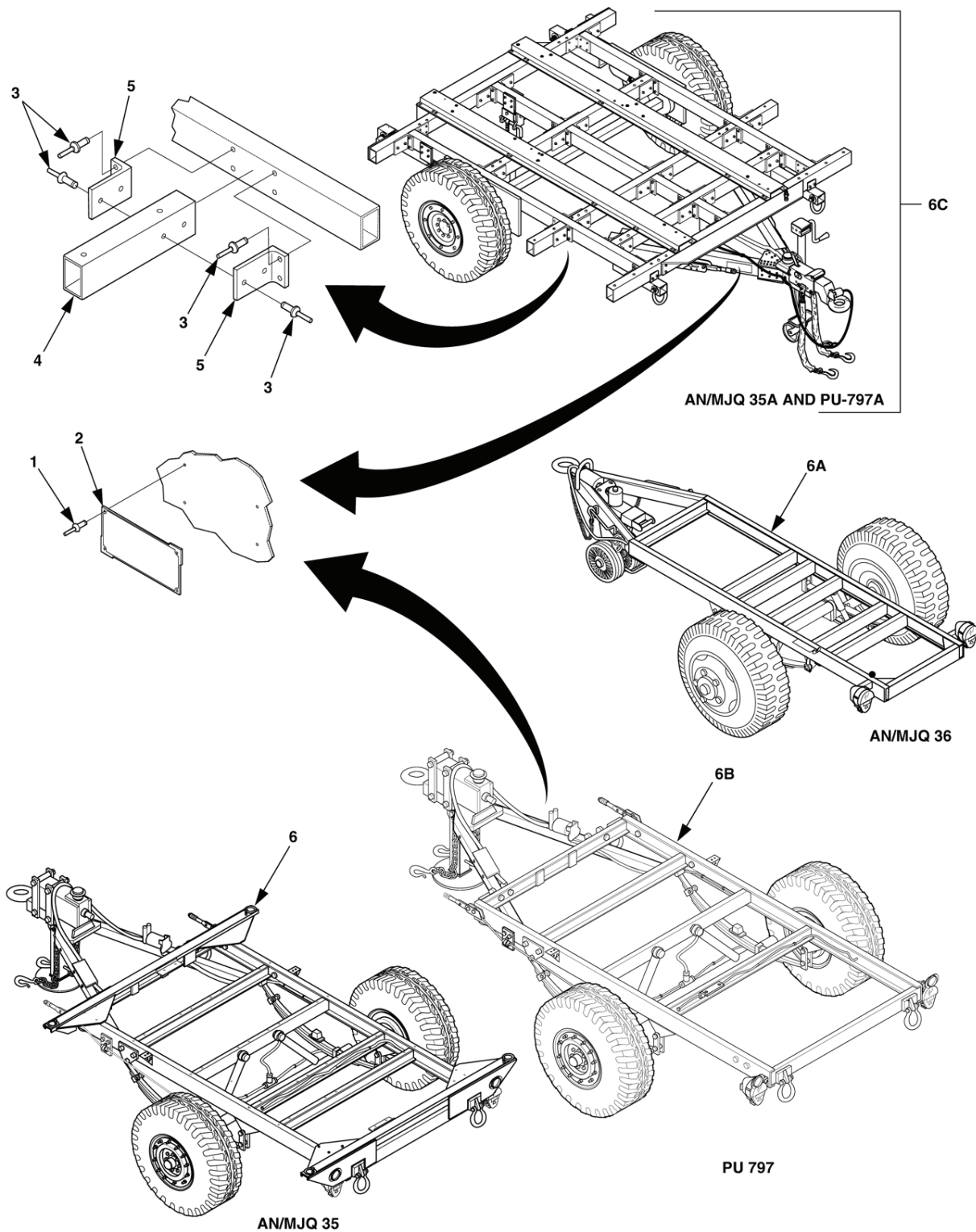


Figure 34. Power Plant/Power Unit Trailer Chassis Assembly.

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 04 TRAILER ASSEMBLY						
FIG. 34 POWER PLANT/POWER UNIT TRAILER CHASSIS ASSEMBLY						
1	PAFZZ		07707	AD45ABS	. RIVET, BLIND UOC: YJC, YFS	4
2	MDFZZ		30554	13230E6572	. PLATE, IDENTIFICA- TION CHASSIS VARIANT UOC: YJC, YFS	1
3	PAFZZ		17446	BOM-R8-8	. RIVET, BLIND UOC: YJC, YFS	16
4	XDFZZ		30554	13230E6514	. STRUCTURAL SECTION UOC: YJC, YFS	2
5	XDFZZ		30554	13230E6524	. CLIP, FRAME, CORNER UOC: YJC, YFS	4
6	XAFFF		97403	13229E5664	. CHASSIS ASSEMBLY UOC: YJD	1
6A	XAFFF		97403	13229E5824	. CHASSIS ASSEMBLY UOC: YJB.....	1
6B	XAFZZ		97403	13229E5746-1	. CHASSIS ASSEMBLY UOC: EVR	1
6C	XAFFF		19207	12450001	. CHASSIS, TRAILER-LTT UOC: YJC, YFS	1
END OF FIGURE						

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

GROUP 05 BULK MATERIAL

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
GROUP 05 BULK MATERIAL						
1	PAFZZ		81349	CO-04HDF (4/4-4/12R)1290	CABLE, POWER UOC: YJB, YJD, YJC	V
2	PAFZZ		88900	22806-000-00	DECK COVERING, LIGHT UOC: YJB, EVR, YJD	V
3	PAFZZ		96906	MS35822-9A	HINGE, BUTT UOC: YJB, YJD, YJC	V
4	PAFZZ		96906	MS35823-6D	HINGE, BUTT	V
5	PAFZZ		81349	M6000E00200	HOSE, NONMETALLIC	V
6	PAFZZ		813349	M23053/5-111-0	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
7	PAFZZ		81349	M23053/5-107-9	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
8	PAFZZ		81349	M23053/5-104-0	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
9	PAFZZ		81349	M23053/5-108-0	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
10	PAFZZ		81349	M23053/5-105-9	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
11	PAFZZ		81349	M23053/5-105-4	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
12	PAFZZ		81349	M23053/5-107-4	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
13	PAFZZ		81349	M23053/5-104-9	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
14	PAFZZ		81349	M23053/5-108-4	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
15	PAFZZ		81349	M23053/5-105-0	INSULATION SLEEVING UOC: YJB, YJD, YJC	V
16	PAFZZ		81349	M24768/2-S-7	SHEET, PLASTIC UOC: YJB, YJD, YJC	V
17	PAFZZ		81346	2B2B2C1F2	STRIP, RUBBER UOC: YJB, YJD, YJC	V
18	PAFZZ		81348	QQB575F30T0437	WIRE, BRAID UOC: YJB, YJD, YJC	V
19	PAFZZ		81349	M22759/16-20-9	WIRE, ELECTRICAL UOC: YJB, YJD, YJC	V
20	PAFZZ		81349	M5086/2-4-9	WIRE, ELECTRICAL UOC: YJB, YJD, YJC	V
21	PAFZZ		81349	M5086/2-6-9	WIRE, ELECTRICAL UOC: YJB, YJD, YJC	V
22	PAFZZ		81349	M22759/16-16-9	WIRE, ELECTRICAL UOC: YJB, YJD, YJC	V
23	PAFZZ		81348	QQW343C06B1B	WIRE, ELECTRICAL	V

(1) ITEM NO	(2) SMR CODE	(3) NSN	(4) CAGEC	(5) PART NUMBER	(6) DESCRIPTION AND USABLE ON CODE (UOC)	(7) QTY
24	PAFZZ		81349	M5086/2-18-9	WIRE, ELECTRICAL UOC: YJB, YJD, YJC.....	V

END OF FIGURE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

SPECIAL TOOLS LIST

Not Applicable

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

NATIONAL STOCK NUMBER (NSN) INDEX

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5999-00-014-0952	14	9	5310-00-087-4652	5	1
5940-00-021-3321	22	18		23	1
5306-00-021-3912	20	3		24	2
5306-00-021-4065	20	3		24	2A
5310-00-022-8847	21	11		25	1
	22	11		26	1
5310-00-042-4229	12	2	5310-00-088-1251	24	6A
5310-00-044-6477	20	2	5940-00-113-8190	19	22
5320-00-052-1972	22	14A		21	9
	29	1	5940-00-114-1310	18	9
5305-00-054-5650	17	3	5935-00-114-8061	14	6
5305-00-054-5652	6	8	5940-00-115-2676	4	4
5305-00-054-6651	6	12		4	12
5305-00-054-6655	18	2		14	12
5305-00-054-6671	6	1	5940-00-115-4996	13	21
	7	1		13	25
	11	7		14	11
	18	11		4	3
5305-00-059-3660	18	8		4	11
5305-00-059-3663	14	4		13	12
	16	4		13	17
5340-00-066-1235	19	1	5310-00-138-4315	12	6
5305-00-068-0508	24	8	5940-00-143-4780	15	5
5305-00-068-0510	23	3	5940-00-143-4793	15	2
	24	4	4730-00-172-0049	28	8
5305-00-068-0511	25	3	5310-00-184-8971	21	6
	28	3		22	6
5305-00-071-2068	2	3	4710-00-185-6948	19	3
5305-00-071-2070	1	3	5999-00-186-3912	9	19
5305-00-071-2505	24	8A	5310-00-187-2413	21	7
5975-00-074-2072	14	15		22	17
5970-00-082-3942	BULK	11	9905-00-2002-3639	24	10
			4210-00-202-7858	22	1
			9905-00-205-2795	24	9
			5310-00-209-1239	19	9

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
4210-00-223-4857	24	5A	5975-00-727-5153	6	24
5310-00-225-5328	6	3		15	6
	7	2	5305-00-727-6804	2	3A
	11	6	5970-00-740-2971	BULK	8
	18	12	6210-00-753-2289	8	1
5310-00-225-6993	1	1	5320-00-753-3830	20	5
	2	1	5310-00-763-8901	25	11
5306-00-226-4827	20	3	5310-00-768-0321	2	1
5307-00-227-1741	21	12	5310-00-802-4701	24	3B
	22	12		27	25
5340-00-234-8422	20	8	5310-00-809-8541	26	2
5310-00-245-3612	24	2B	5970-00-812-1356	BULK	7
5310-00-252-8748	20	1	5970-00-812-2967	BULK	10
4210-00-270-4512	21	1	5970-00-812-2969	BULK	9
5940-00-271-9504	19	20	5940-00-813-0698	6	20
4730-00-277-5115	19	6		9	2
5940-00-283-5280	15	3	5315-00-838-4584	27	9
5330-00-402-5125	19	5	5315-00-839-5822	27	5
5305-00-432-4172	24	11	5305-00-841-2681	19	7
5945-00-435-1833	6	10	5975-00-878-3791	19	15
5320-00-483-0558	27	1	5310-00-883-9417	22	17
5305-00-543-4372	24	4A	6210-00-900-9423	8	6
5940-00-557-4338	4	2		9	5
	4	10		13	3
	22	9		13	8
6145-00-578-6594	BULK	18	5320-00-904-4136	21	14
6145-00-578-6595	BULK	17		22	14
5320-00-582-3305	11	1	4730-00-908-3194	21	2
5320-00-582-5677	22	18		22	2
5310-00-584-7995	21	8	5975-00-924-9927	19	18
	22	8	5310-00-929-6395	6	13
4710-00-597-8731	19	2	5310-00-933-8118	6	6
5310-00-614-3506	2	2		17	2
5310-00-625-5756	20	2	5310-00-933-8119	6	2
5305-00-638-8920	26	9		7	3
5940-00-660-3633	15	4		11	5
5305-00-680-4262	24	4B		18	13
5305-00-725-2317	5	3	5310-00-933-8120	14	2
	26	3		16	2
	27	3		18	6

STOCK NUMBER	FIG.	ITEM	STOCK NUMBER	FIG.	ITEM
5310-00-934-9748	6	5	6210-01-230-1851	8	9
	17	1		9	8
5310-00-934-9751	3	1	5340-01-242-4554	3	4
5310-00-934-9759	11	4	5310-01-257-7590	5	2
5310-00-934-9761	18	1		23	2
5310-00-934-9765	14	1		24	3
	16	1		25	2
	18	5		28	2
5970-00-954-1622	BULK	12	5310-01-266-4641	1	2
5310-00-974-6623	20	1A		2	2
5340-00-975-2126	11	2	6115-01-274-7392	1	5
	20	6		2	4
5940-00-983-6046	18	3	6115-01-275-5061	1	5
5310-00-984-3806	20	1		2	4
5975-00-984-6582	27	26	5340-01-295-4896	11	17
5310-00-984-7042	24	2C		11	2
	27	24	5310-01-303-4701	6	14
5310-00-989-0908	22	16	6240-01-355-4422	8	3
5310-00-989-5945	12	1	END OF WORK PACKAGE		
5305-00-993-1851	3	2			
5310-01-012-7400	12	4			
5120-01-013-1676	19	13			
5120-01-019-9564	19	23			
6145-01-042-4621	BULK	16			
5935-01-042-7579	6	11			
6145-01-044-8799	BULK	19			
5340-01-053-7127	BULK	5			
5340-01-054-4934	BULK	4			
5310-01-078-5996	21	5			
	22	5			
5999-01-091-3187	14	8			
5320-01-140-1479	27	2			
5310-01-141-6672	6	7			
	17	4			
5315-01-162-0143	28	6			
2590-01-167-8596	28	13			
5310-01-180-7157	2	1B			
5310-01-216-7390	1	4			

OPERATOR AND FIELD MAINTENANCE
5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN
PART NUMBER INDEX

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
10-33675-36	14	10	13229E5649-1-12	11	12
11500	7	4	13229E5649-1-13	11	13
12450001	29	6B	13229E5649-1-6	11	11
13200E6361	19	11	13229E5654-1	11	14
13200E6363	19	8	13229E5654-2	11	15
13205E4918	21	13	13229E5666-14	22	15
	22	13	13229E5666-15	22	15
13211E7541	19	1	13229E5666-3	21	15
13211E7542	19	2	13229E56664	21	15
13211E7543	19	3	13229E5670-24	21	10
13211E7544	19	4	13229E567041	21	3
13211E7546	19	5	13229E5677	25	7
13211E7547	19	10	13229E5715-22	22	3
13211E7548	19	12	13229E5743-2	26	8
13212E5748	25	9	13229E5746	29	6
13214E1206-1	28	4	13229E5749-2	24	1
13214E1206-2	28	4	13229E5758	26	10
13214E1207	28	4	13229E5764-2	9	1
13214E1208	28	10	13229E5764-2-2	9	3
13214E1209	28	6	13229E5764-2-3	9	4
13214E1210	28	12	13229E5817	25	4
13214E1211	28	11	13229E5817-6	25	5
13214E1212-1	28	13	13229E5818	25	15
13214E1223	21	12	13229E5819-1	11	3
	22	12	13229E5819-2	11	3
13214E1235	24	5A	13229E5820-1	5	4
13214E1391	8	6	13229E5820-2	5	4
	9	5	13229E582043	8	5
	3	5	13229E582044	8	4
13222E9686	6	11	13229E582048	18	10
13226E7741	19	13	13229E5820-51	17	6
13229E2308	26	11	13229E5821	18	15
13229E5649-1	11	8			

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
13229E58214	18	16	13229E5832-1-6	14	13
13229E5822	18	14	13229E5832-1-8	14	14
13229E5823	6	28	13229E5832-2	14	5
13229E5824	29	6	13229E5833	12	7
13229E5825	24	1	13229E5836-3	4	1
13229E5827	3	6	13229E5836-3-1	4	8
13229E5828-1	13	1	13229E5836-3-5	4	5
13229E5828-1-2	13	5	13229E5836-3-6	4	6
13229E5828-1-4	13	4	13229E5836-3-7	4	7
13229E5828-2	13	6	13229E5836-4	4	9
13229E5828-2-2	13	10	13229E58364-1	4	16
13229E5828-2-4	13	9	13229E5836-4-5	4	13
13229E5828-3	13	11	13229E5836-4-6	4	14
13229E5828-3-2	13	15	13229E5836-4-7	4	15
13229E5828-34	13	14	13229E7946	20	4
13229E58284	13	16	13229E9619	26	4
13229E58284-2	13	19	13229E9619-1-7	26	5
13229E582844	13	18	13229E9620-1	26	6
13229E5828-5	13	20	13229E9620-1-7	26	7
13229E5828-5-2	13	23	13229E9621-1	23	4
13229E5828-54	13	22	13229E9621-2	23	5
13229E5828-6	13	24	13229E9629-4	25	14
13229E5828-6-2	13	27	13229E9630	11	16
13229E5828-64	13	26	13229E9631	12	8
13229E5829	6	19	13229E9635	1	6
13229E5829-1	6	23	13230E6514	29	4
13229E5829-3	6	21	13230E6524	29	5
13229E5829-6	6	22	13230E6526	27	10
13229E5830	6	4	13230E6527	27	6
13229E5830-9	6	25	13230E6530-26	22	3
13229E5831	15	1	13230E6531	22	15B
13229E5831-1	15	7	13230E6541	22	15C
13229E5831-7	15	8	13230E6564-1	23	9
13229E5831-9	15	9	13230E6564-2	23	11
13229E5832-1	14	5	13230E6565	24	1B
13229E5832-1-2	14	16	13230E6567-1	23	8
13229E5832-1-3	14	17	13230E6567-2	23	10

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
13230E6568	23	7	AN961-616T	21	7
13230E6569-1	27	3		22	7
13230E6569-2	27	4	B1821BH025C075N	24	8
13230E6571-1	27	14	B1821BH025C088N	24	8A
13230E6571-2	27	15	B1821BH031C100N	20	3
13230E6572	29	2	B1821BH038C075N	24	4A
13230E6576	27	7	B1821BH038C100N	23	3
13230E6577	27	9		24	4
13230E6578-1	27	11	B1821BH038C125N	25	3
13230E6578-2	27	12		28	3
13230E6579	27	19	B1821BH038C150N	5	3
13230E6580-1	27	22		26	3
13230E6580-2	27	23		28	3
13230E6582-1	27	17	B1821BH038C225N	26	9
13230E6582-2	27	18	B1821BH038C600N	25	6
13230E6583-1	27	20	B1821BH050C138N	2	3
13230E6583-2	27	21	B1821BH050C175N	1	3
181-0931-001	8	7	BOM-R12-8	28	3A
	9	6	BOM-R8-10	27	2
181-8836-09-553	8	9	BOM-R8-8	27	1
	9	8		29	3
22806-000-00	BULK	3	CBA-70	19	20
2B2B2C1F2	BULK	15	CO-04HDE(4/4-4/1 2R)1290	BULK	2
3304695-1	21	1	FS0216B122-1	19	15
	22	1			19
37TB18B	6	26	G9B	8	8
37TB5	18	3		9	7
4328	19	7	GRB58	19	18
565C10GAP10	6	16	GRC 58	19	17
70-801074	19	19	HLP1053A	19	16
72-2029-1	19	23	JANTXIN5619	6	17
A-A-1106	22	1	JCG-6026	16	5
AD45ABS	22	14A	LC21CN3	8	2
	29	1	LH80/1	8	1
AN816-5-4	19	6	M22759/16-16-9	BULK	19
AN960-C4	6	7	M22759/16-20-9	BULK	16
	17	4	M23053/5-104-0	BULK	9
			M23053/5-105-0	BULK	12
			M23053/5-105-9	BULK	11

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
M23053/5-107-9	BULK	8	MS16203-27	21	8
M23053/5-108-0	BULK	10		22	8
M23053/5-108-4	BULK	14	MS16562-66	28	9
M23053/5-111-0	BULK	7	MS18015-1	20	6
M24243/1B403	21	14	MS18212-65	12	5
	22	14	MS20427-4C6	20	7
M24768/-S-7	BULK	13	MS20600AD3W3	11	10
M39006/22-0631	6	18	MS20600AD4W3	11	1
M39029/49-329	14	9	MS20613-4P5	20	5
M39029/49-331	14	8	MS20659-143	4	4
M3BE510	3	7		4	12
M45938/1-13C	6	29		14	12
M5086/2-4-9	BULK	17	MS20659-145	4	3
M5086/2-6-9	BULK	18		4	11
M55155/199G03	6	15		13	2
M5757/23-003	6	10		13	7
M6000E00200	BULK	6		13	12
	22	3		13	17
MEP 803A	1	5		13	21
	2	4		13	25
MEP 813A	1	5	MS21919WCG21	14	11
	2	4		3	4
MGL100.R6-9	27	5	MS24519-7	21	4
MGLP-R8-10	23	6		22	4
	27	8	MS24524-30	10	3
MGLP-R8-6	27	16	MS24665-353	28	5
MS15006-1	28	8	MS25036-101	6	20
MS15567-2	8	3		9	2
MS15795-810	22	18	MS25036-106	15	3
	2	2A	MS25036-108	15	5
MS15795-812	20	2	MS25036-110	15	2
MS15795-813	24	3B	MS25036-119	18	9
	27	25	MS25036-122	19	22
MS15795-841	6	3		21	9
	7	2		22	9
	11	6	MS25036-125	4	2
	18	12		4	10
MS15795-848	14	3		13	3
	16	3		13	8
	18	7		13	13
			MS25036-155	15	4
			MS27130-CR68	25	8
				25	10

PART NUMBER	FIG.	ITEM	PART NUMBER	FIG.	ITEM
MS27130-CR93	18	17	MS35649-244	6	5
MS27183-27	26	2		17	1
MS27407-3	10	2	MS35649-264	18	1
MS27969-4	20	8	MS35649-284	11	4
MS3367-1-0	27	26	MS35650-302	3	1
MS3367-1-9	14	15	MS35650-304	14	1
MS3367-4-9	6	24		16	1
	15	6		18	5
MS35207-267	3	2	MS35650-3314	20	1
MS35307-414	2	3A	MS35650-3384	24	2
MS35308-334	20	3	MS35691-35	12	1
MS35308-338	20	3	MS35822-9A	BULK	4
MS35308-360	24	48	MS35823-6A	BULK	5
MS35333-110	21	11	MS35842-11	21	2
	22	11		22	2
				12	3
MS35333-113	12	2	MS39347-2	22	19
MS35335-60	19	9	MS39347-4	12	3
MS35338-103	21	6	MS51412-1	6	14
	22	6	MS51412-13	25	13
MS35338-135	6	6	MS51412-2	3	3
	17	2	MS51412-25	20	2
MS35338-136	6	13	MS51412-27	23	2A
MS35338-137	6	2		24	3A
	7	3		28	2
	11	5	MS51412-4	24	7A
	18	13	MS51412-7	5	2
MS35338-138	14	2		23	2
	16	2		24	3
	18	6		25	2
MS35338-140	20	1A		28	2
MS35338-141	24	2C	MS51412-9	1	2
	27	24		2	2
MS35338-143	2	1B	MS51415-11	25	12
MS35338-158	22	17	MS51415-9	1	4
MS35387-1	24	9	MS51858-5	12	4
MS35387-2	24	10	MS51859-5	12	6
MS35425-75	21	5	MS51861-37	24	11
	22	5	MS51922-1	24	6A
MS3561-3	22	16			

PART NUMBER	FIG.	ITEM
MS51922-17	5	1
	23	1
	24	2
	24	2A
	25	1
	26	1
	28	1
MS51922-33	1	1
	2	1
MS51922-9	20	1
MS51957-16	17	3
MS51957-18	6	8
MS51957-27	6	12
MS51957-31	18	2
MS51957-46	6	1
	7	1
	11	7
	18	11
MS51958-57	14	4
	16	4
MS51958-64	18	8
MS51968-23	25	11
MS51971-5	2	1A
MS90555C32413S	14	7
MS90555C32413SY	14	7
MS90563-3C	14	6
MSA37TB18	6	27
MSA37TB5	18	4
QQB575F30T0437	BULK	1
QQW343C06B1B	BULK	20
	19	21
	22	10
RER75F2490P	6	9
RFR75F2491P	17	5
TBJA	10	1

END OF WORK PACKAGE

CHAPTER 8

OPERATOR AND FIELD SUPPORTING INFORMATION

FOR

**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL
ENGINE DRIVEN**

CHAPTER 8
SUPPORTING INFORMATION

WORK PACKAGE INDEX

<u>Title</u>	<u>WP Sequence No.</u>
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OPERATOR AND FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****REFERENCES**

SCOPE

This work package lists all forms, regulations, pamphlets, specifications, standards, technical manuals, technical bulletins, lubrication orders, field manuals, and miscellaneous publications referenced in this manual.

ARMY REGULATIONS

AR 310-25 Dictionary of United States Army Terms

COMMERCIAL ITEM DESCRIPTIONS

A-A-1051	Paperboard, Wrapping and Cushioning
A-A-55057	Panels, Wood/Wood-Based, Construction and Decorative
ASME-Y14.38M	Abbreviations for Use on Drawings, and in Specifications, Standards and Technical Documents
ASTM-D3953-87	Strapping, Steel, and Seals
ASTM-D5486/D5486M	Standard Specification for Pressure-Sensitive Tape for Packing, Box Closure, and Sealing
ASTM-D6251 (PPP-B-601)	Boxes, Wood, Cleated Plywood
MIL-STD-2073-1	Generator Sets, Mobile Electric Power, Packaging of

DEPARTMENT OF THE ARMY PAMPHLETS

DA PAM 750-8 The Army Maintenance Management System (TAMMS)

FIELD MANUALS

FM 3-3	Chemical and Biological Contamination Avoidance
FM 3-4	NBC Protection
FM 3-5	NBC Decontamination
FM 4-25.11	First Aid
FM 5-20	Camouflage
FM 9-207	Operation and Maintenance of Ordnance material in Cold Weather (0 to -65 °F)
FM 20-31	Electrical Power Generation in the Field
FM 21-6	Techniques of Military Instruction
FM 21-30	Military Symbols
FM 21-40	Chemical, Biological, Radiological, and Nuclear Defense
FM 21-305	Manual for Wheeled Vehicle Driver
FM 31-70	Basic Cold Weather Manual
FM 31-71	Northern Operations
FM 90-6	Mountain Operations

FORMS

DA Form 2028	Recommended Changes to Publications and Blank Forms
DA Form 2062	Hand Receipt
DA Form 2404	Equipment Inspection and Maintenance Worksheet
DA Form 2407	Maintenance Request
DA Form 2408	Equipment Log Assembly (Records)
DA Form 2408-9	Equipment Control Record
DA Form 2408-20	Oil Analysis Log
DA Form 5988-E	Equipment Inspection and Maintenance Worksheet
DD Form 314	Preventive Maintenance Schedule and Record
DD Form 518	Accident Identification Card
DD Form 1397	Processing and Deprocessing Record for Shipment, Storage, and Issue of Vehicles and Spare Engines
SF Form 91	Motor Vehicle Accident Report
SF Form 361	Transportation Discrepancy Report
SF Form 368	Product Quality Deficiency Report

LUBRICATION ORDERS

LO 9-2815-252-12	Lubrication Order: Diesel Engine, Model No.: DN2M, 2 Cylinder .93 Liter
LO 9-6115-641-12	Lubrication Order: Generator Set, Skid Mounted, Tactical Quiet, 5 kW, MEP-802A (60 Hz), MEP 812A (400 Hz)

MILITARY SPECIFICATIONS

MIL-PRF-22191E(1)	Barrier Materials, Transparent, Flexible, Heat Sealable
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MILITARY STANDARDS

MIL-STD-129P	Marking for Shipment and Storage
MIL-STD-2000	Standard Requirements for Soldered Electrical and Electronic Assemblies
MIL-STD 2073-1	Preservation, Methods of

MISCELLANEOUS PUBLICATIONS

AR 700-138	Army Logistics Readiness and Sustainability
AR 735-11-2	Reporting of Supply Discrepancies
AR 750-1	Army material Maintenance Policy and Retail Maintenance Operations
CTA 8-100	Army Medical Department Expendable/Durable Items
CTA 50-970	Expendable Items (Except Medical Class V, Repair Parts, and Heraldic Items)
TB 9-6115-641-13	Winterization Kit Installed on Generator Set, Skid Mounted, Tactical Quiet, 5 kW, 60 and 400 Hz (NSN 6115-01-476-8973)
TC 9-237	Operator's Circular, Welding Theory and Application

TECHNICAL MANUALS

TM 750-244-2	Procedures for Destruction of Electronics material to Prevent Enemy Use
TM 9-2330-202-14&P	Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists), TRAILER, CARGO, $\frac{3}{4}$ ton, 2-wheel, M101A1 (NSN 2330-00-898-6779), M101A2 (NSN 2330-01-102-4697), M101A3 (2330-01-372-5641); TRAILER, CHASSIS, $\frac{3}{4}$ ton, 2-wheel, M116A1 (2330-00-898-6780), M116A2 (2330-01-101-8434), M116A2E1 (2330-01-333-9773); TRAILER, CHASSIS, 1-ton, 2-wheel, M116A3 (2330-01-359-0080)
TM 9-2330-213-14&P	Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists), TRAILER, CHASSIS: 1 $\frac{1}{2}$ Ton, 2-wheel, M103A1 (NSN 2330-00-835-8629), M103A3 (NSN 2330-00-141-8052); TRAILER, CARGO: 1 $\frac{1}{2}$ ton, 2-wheel, M105A1 (NSN 2330-00-835-8631), M105A2 (NSN 2330-00-141-8050), M107A2C (NSN 2330-00-542-5688); TRAILER, VAN, SHOP: FOLDING SIDES, 1-1/2 ton, 2-wheel, M448 (NSN 2330-00-631-5692)
TM 9 2330-392-14&P	Operator's Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists), TRAILER, CARGO: LIGHT, 2-wheel, M1101 (NSN 2330-01-387-5443); TRAILER, CARGO: HEAVY 2-wheel, M1102 (NSN 2330-01-387-5426); TRAILER, CHASSIS: 2-wheel, (NSN 2330-01-387-5424)
TM 9-2815-252-24	Unit, Direct Support and General Support Maintenance Instructions for Diesel Engine, Model DN2M, 2 Cylinder .93 Liter (NSN 2815-01-350-2205)
TM 9-2815-252-24P	Unit, Direct Support and General Support Maintenance Repair Parts and Special Tools List: Diesel Engine, Model DN2M-1, 2 Cylinder .93 Liter (NSN 2815-01-350-2205)
TM 9-6115-641-10	Operator's Manual, Generator Set, Skid Mounted, Tactical Quiet, 5 kW, 60/400 Hz, MEP-802A (60 Hz) 6115-01-274-7387, MEP 812A (400 Hz) 6115-01-274-7391
TM 9-6115-641-24	Unit, Direct Support and General Support Maintenance Manual, Generator Set, Skid Mounted, Tactical Quiet, 5 kW, 60/400 Hz, MEP-802A (60 Hz) 6115-01-274-7387, MEP812A (400 Hz) 6115-01-274-7391
TM 9-6115-641-24P	Repair Parts and Special Tools List: Generator Set, Tactical Quiet, 5 kW, 60/400 Hz

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

MAINTENANCE ALLOCATION CHART (MAC) INTRODUCTION

MAINTENANCE ALLOCATION CHART (MAC)

INTRODUCTION

The Army Maintenance System MAC

This introduction provides a general explanation of all maintenance and repair functions authorized at the two maintenance levels under the Two-Level Maintenance System concept.

This MAC (immediately following the introduction) designates overall authority and responsibility for the performance of maintenance functions on the identified end item or component. The application of the maintenance functions to the end item or component shall be consistent with the capacities and capabilities of the designated maintenance levels, which are shown on the MAC in column (4) as:

Field - includes two subcolumns, Crew (C) and Maintainer (F).

Sustainment - includes two subcolumns, Below Depot (H) and Depot (D).

The maintenance to be performed at field and sustainment levels is described as follows:

1. Crew maintenance. The responsibility of a using organization to perform maintenance on its assigned equipment. It normally consists of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies. The replace function for this level of maintenance is indicated by the letter "C" in the third position of the SMR code. A "C" appearing in the fourth position of the SMR code indicates complete repair is possible at the crew maintenance level.
2. Maintainer maintenance. Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "F" appearing in the third position of the SMR code. An "F" appearing in the fourth position of the SMR code indicates complete repair is possible at the field maintenance level. Items are returned to the user after maintenance is performed at this level.
3. Below depot sustainment. Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "H" appearing in the third position of the SMR code. An "H" appearing in the fourth position of the SMR code indicates complete repair is possible at the below depot sustainment maintenance level. Items are returned to the supply system after maintenance is performed at this level.
4. Depot sustainment. Maintenance accomplished on a component, accessory, assembly, subassembly, plug-in unit, or other portion either on the system or after it is removed. The replace function for this level of maintenance is indicated by the letter "D" or "K" appearing in the third position of the SMR code. Depot sustainment maintenance can be performed by either depot personnel or contractor personnel. A "D" or "K" appearing in the fourth position of the SMR code indicates complete repair is possible at the depot sustainment maintenance level. Items are returned to the supply systems after maintenance is performed at this level.

The tools and test equipment requirements table (immediately following the MAC) lists the tools and test equipment (both special tools and common tool sets) required for each maintenance function as referenced from the MAC.

The remarks table (immediately following the tools and test equipment requirements) contains supplemental instructions and explanatory notes for a particular maintenance function.

Maintenance Functions

Maintenance functions are limited to and defined as follows:

1. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination (e.g., by sight, sound, or feel). This includes scheduled inspection and gaugings and evaluation of cannon tubes.

2. **Test.** To verify serviceability by measuring the mechanical, pneumatic, hydraulic, or electrical characteristics of an item and comparing those characteristics with prescribed standards on a scheduled basis, i.e., load testing of lift devices and hydrostatic testing of pressure hoses.
3. **Service.** Operations required periodically to keep an item in proper operating condition; e.g., to clean (includes decontaminate, when required), to preserve, to drain, to paint, or to replenish fuel, lubricants, chemical fluids, or gases. This includes scheduled exercising and purging of recoil mechanisms. The following are examples of service functions:
 - a. **Unpack.** To remove from packing box for service or when required for the performance of maintenance operations.
 - b. **Repack.** To return item to packing box after service and other maintenance operations.
 - c. **Clean.** To rid the item of contamination.
 - d. **Touch up.** To spot paint scratched or blistered surfaces.
 - e. **Mark.** To restore obliterated identification.
4. **Adjust.** To maintain or regulate, within prescribed limits, by bringing into proper position, or by setting the operating characteristics to specified parameters.
5. **Align.** To adjust specified variable elements of an item to bring about optimum or desired performance.
6. **Calibrate.** To determine and cause corrections to be made or to be adjusted on instruments of test, measuring, and diagnostic equipment used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.
7. **Remove/Install.** To remove and install the same item when required to perform service or other maintenance functions. Install may be the act of emplacing, seating, or fixing into position a spare, repair part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.
8. **Paint (ammunition only).** To prepare and spray color coats of paint so that the ammunition can be identified and protected. The color indicating primary use is applied, preferably, to the entire exterior surface as the background color of the item. Other markings are to be repainted as original so as to retain proper ammunition identification.
9. **Replace.** To remove an unserviceable item and install a serviceable counterpart in its place "Replace" is authorized by the MAC and assigned maintenance level is shown as the third position code of the Source, Maintenance and Recoverability (SMR) code.
10. **Repair.** The application of maintenance services, including fault location/troubleshooting, removal/installation, disassembly/assembly procedures and maintenance actions to identify troubles and restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

NOTE

The following definitions are applicable to the "repair" maintenance function:

Services. Inspect, test, service, adjust, align, calibrate, and/or replace.

Fault location/troubleshooting. The process of investigating and detecting the cause of equipment malfunctioning; the act of isolating a fault within a system or Unit Under Test (UUT).

Disassembly/assembly. The step-by-step breakdown (taking apart) of a spare/functional group coded item to the level of its least component, that is assigned an SMR code for the level of maintenance under consideration (i.e., identified as maintenance significant).

Actions. Welding, grinding, riveting, straightening, facing, machining, and/or resurfacing.

11. **Overhaul.** That maintenance effort (service/action) prescribed to restore an item to a completely serviceable/operational condition as required by maintenance standards in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.
12. **Rebuild.** Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (e.g., hours/miles) considered in classifying Army equipment/components.

Explanation of Columns in the MAC

Column (1) Group Number. Column (1) lists Functional Group Code (FGC) numbers, the purpose of which is to identify maintenance significant components, assemblies, subassemblies, and modules with the Next Higher Assembly (NHA).

Column (2) Component/Assembly. Column (2) contains the item names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

Column (3) Maintenance Function. Column (3) lists the functions to be performed on the item listed in column (2). (For a detailed explanation of these functions refer to "Maintenance Functions" outlined above).

Column (4) Maintenance Level. Column (4) specifies each level of maintenance authorized to perform each function listed in column (3), by indicating work time required (expressed as manhours in whole hours or decimals) in the appropriate subcolumn. This work time figure represents the active time required to perform that maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function varies at different maintenance levels, appropriate work time figures are to be shown for each level. The work time figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time (including any necessary disassembly/assembly time), troubleshooting/fault location time, and quality assurance time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the MAC. The symbol designations for the various maintenance levels are as follows:

Field:

C Crew maintenance

F Maintainer maintenance

Sustainment:

L Specialized Repair Activity (SRA)

H Below depot maintenance

D Depot maintenance

NOTE

The "L" maintenance level is not included in column (4) of the MAC. Functions to this level of maintenance are identified by work time figure in the "H" column of column (4), and an associated reference code is used in the REMARKS column (6). This code is keyed to the remarks and the SRA complete repair application is explained there.

Column (5) Tools and Equipment Reference Code. Column (5) specifies, by code, those common tool sets (not individual tools), common Test, Measurement and Diagnostic Equipment (TMDE), and special tools, special TMDE and special support equipment required to perform the designated function. Codes are keyed to the entries in the tools and test equipment table.

Column (6) Remarks Code. When applicable, this column contains a letter code, in alphabetical order, which is keyed to the remarks table entries.

Explanation of Columns in the Tools and Test Equipment Requirements

Column (1) - Tool or Test Equipment Reference Code. The tool or test equipment reference code correlates with a code used in column (5) of the MAC.

Column (2) - Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.

Column (3) - Nomenclature. Name or identification of the tool or test equipment.

Column (4) - National Stock Number (NSN). The NSN of the tool or test equipment.

Column (5) - Tool Number. The manufacturer's part number.

Explanation of Columns in the Remarks

Column (1) - Remarks Code. The code recorded in column (6) of the MAC.

Column (2) - Remarks. This column lists information pertinent to the maintenance function being performed as indicated in the MAC.

END OF WORK PACKAGE

MAINTENANCE ALLOCATION CHART (MAC)

(1) GROUP NUMBER	(2) COMPONENT / ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARK CODES
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
00	POWER PLANT/ POWER UNIT	Inspect	0.2					D
		Inspect	0.1					D
0100	GENERATOR SET	Inspect	0.2					D
		Inspect		0.5				D
		Test		1			5, 9	I, L
		Service	0.3					I, K, L
		Service		0.3				I, K, L
		Adjust		0.3				I, L
		Repair		1.5			5, 9	I, K, L
		Remove		1.5			6, 9	
		Replace		1.5			6, 9	N
0200	ELECTRICAL SYS- TEM	Inspect		0.1				A, C
0201	POWER CABLES	Inspect		0.1				D
		Test		0.3			5, 9	
		Remove		0.5			9	
		Repair		1.1			1, 6, 9	M
		Replace		0.5			9	N
0202	SWITCH BOX ASSEMBLY	Inspect	0.1					D
		Inspect		0.1				D
		Remove		0.5			9	
		Repair		0.3			3, 9	
		Replace		0.5			9	N
020201	RELAY BOARD ASSEMBLY	Test		1.0			6, 9	
		Repair		1.0			6, 9	
02020101	RELAYS	Test		0.2			6, 9	
		Remove		0.1			9	
		Replace		0.1			9	N
020202	RELAY, PERMISSIVE PARALLELING	Test		1.0			6, 9	
		Remove		0.5			9	
		Replace		0.5			9	N
020203	LIGHTS/LAMPS	Test		0.2			5, 9	
		Remove		0.2			9	
		Repair		0.3			5, 9	
		Replace		0.2			9	N
020204	SWITCHES	Test		0.2			5, 9	
		Remove		0.2			9	
		Replace		0.2			9	N
020205	LEADS/HARNESSES	Test		0.3			6, 9	
		Remove		0.4			9	
		Repair		0.9			1, 6, 9	
		Replace		0.4			9	N
020206	TERMINAL, LOAD	Inspect	0.1					D
		Inspect		0.1				D
		Remove		0.5			9	
		Repair		0.2			9	
		Replace		0.5			9	N

Table 1. MAC for Power Units PU-797, PU-797A Power Plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36. - Continued

(1) GROUP NUMBER	(2) COMPONENT / ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE LEVEL				(5) TOOLS AND EQUIPMENT REF CODE	(6) REMARK CODES
			FIELD		SUSTAINMENT			
			CREW	MAINTAINER	BELOW DEPOT	DEPOT		
			C	F	H	D		
020207	CONTACTOR	Test Remove Replace		0.2 0.5 0.5			2, 6, 9 9 9	N
020208	RESISTORS	Test Replace		0.2 0.4			6, 9 9	
0300	ACCESSORIES	Inspect	0.1					
0301	BOX, ACCESSORY	Inspect Remove Repair Replace	0.1	0.2 0.5 0.2			9 3, 9 9	D D
0302	FIRE EXTINGUISHER/ BRACKET	Inspect Inspect Remove Replace	0.1	0.1 0.2 0.2			9 9	N D D
0400	TRAILER ASSEMBLY	Inspect Inspect	0.2	0.2				N D, G, H, J D, G, H, J
0401	FENDERS	Remove Remove Remove Remove Repair Repair Replace Replace Replace		1.5 3.0 2.0 4.0 2.0 4.0 1.5 3.0 2.0			9 9 4, 9 4, 9 7, 8, 9 7, 8, 9 9 9 4, 9	E A, C F B E, F A, C, K E, F, N A, B, C, N F, N
0402	TRAILER LEVELING- SUPPORT JACK	Inspect Service Remove Remove Repair Replace Replace	0.1	0.2 0.3 0.5 0.8 0.3 0.5			9 9 4, 9 9 9 4, 9	D D A, C, E B, F A, C, E, N B, F, N

Table 2. Tool and Test Equipment Requirements for Power Units PU-797, PU-797A Power Plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36.

TOOLS OR TEST EQUIPMENT	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
1	F	CRIMPING TOOL, HYDRAULIC, WIRE SIZE 8 THROUGH 4/0	5130-00-762-9100	MS25441
2	F	MULTIMETER (AN/PSM-45L)		
3	F	RIVETER, BLIND HEAD	5120-00-148-5847	
4	F	RIVET GUN, PNEUMATIC		
5	F	SHOP EQUIPMENT, STANDARD AUTOMOTIVE TOOL SET (SATS)	4910-01-490-6453	SC 4910-95-A81
6	F	SHOP EQUIPMENT, ELECTRICAL REPAIR, SEMITRAILER MOUNTED		

Table 2. Tool and Test Equipment Requirements for Power Units PU-797, PU-797A Power Plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36. - Continued

TOOLS OR TEST EQUIPMENT	MAINTENANCE LEVEL	NOMENCLATURE	NATIONAL STOCK NUMBER	TOOL NUMBER
7	F	SHOP EQUIPMENT, WELDING, FIELD	3470-00-357-7268	SC 3470-95-CL-A08
8	F	TOOL KIT. BODY AND FENDER REPAIR	5180-00-357-7731	SC 5180-90-CL-N62
9	F	TOOL KIT, GENERAL MECHANIC'S	5180-00-177-7033	SC 5180-90-CL-N26

Table 3. Remarks for Power Units PU-797, PU-797A Power Plants AN/MJQ-35, AN/MJQ-35A, and AN/MJQ-36.

REMARK CODES	REMARKS
A	AN/MJQ-35 only.
B	AN/MJQ-35A only.
C	AN/MJQ-36 only.
D	Preventive Maintenance Checks and Service (PMCS).
E	PU-797 only.
F	PU-797A only.
G	Refer to TM 9-2330-202-14&P for 1 ton trailer maintenance.
H	Refer to TM 9-2330-213-14&P for 1 1/2 ton trailer maintenance.
I	Refer to TM 9-2815-252-24 for engine maintenance.
J	Refer to TM 9-6115-392-14&P for high mobility trailer maintenance.
K	Refer to TM 9-6115-641-10 for generator set operator maintenance.
L	Refer to TM 9-6115-641-24 for generator set unit and higher level maintenance.
M	Refer to WP 0060 for repair.
N	Replace is the same as Removal and Installation.

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

COMPONENTS OF END ITEM (COEI) AND BASIC ISSUE ITEMS (BII) LISTS

INTRODUCTION

Scope

This work package lists COEI and BII for the Power Unit/Power Plant to help you inventory items for safe and efficient operation of the equipment.

General

The COEI and BII information is divided into the following lists:

Components of End Item (COEI). This list is for information purposes only and is not authority to requisition replacements. These items are part of the Power Unit/Power Plant. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Items of COEI are removed and separately packaged for transportation or shipment only when necessary. Illustrations are furnished to help you find and identify the items.

Basic Issue Items (BII). These essential items are required to place the Power Unit/Power Plant in operation, operate it, and to do emergency repairs. Although shipped separately packaged, BII must be with the Power Unit/Power Plant during operation and when it is transferred between property accounts. Listing these items is your authority to request/requisition them for replacement based on authorization of the end item by the TOE/MTOE. Illustrations are furnished to help you find and identify the items.

Explanation of Columns in the COEI List and BII List

Column (1) Illus Number. Gives you the number of the item illustrated.

Column (2) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (3) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The stowage location of COEI and BII is also included in this column. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (4) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

These codes are identified below:

Code	Used on
YJD	AN/MJQ-35
YJC	AN/MJQ-35A
YJB	AN/MJQ-36
EVR	PU-797
YFS	PU-797A

Column (5) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (2).

Column (6) Qty Rqr. Indicates the quantity required.

NOTE

The following usable on codes apply to all illustrations on the BII list, YJD, YJC, YJB, EVR and YFS.

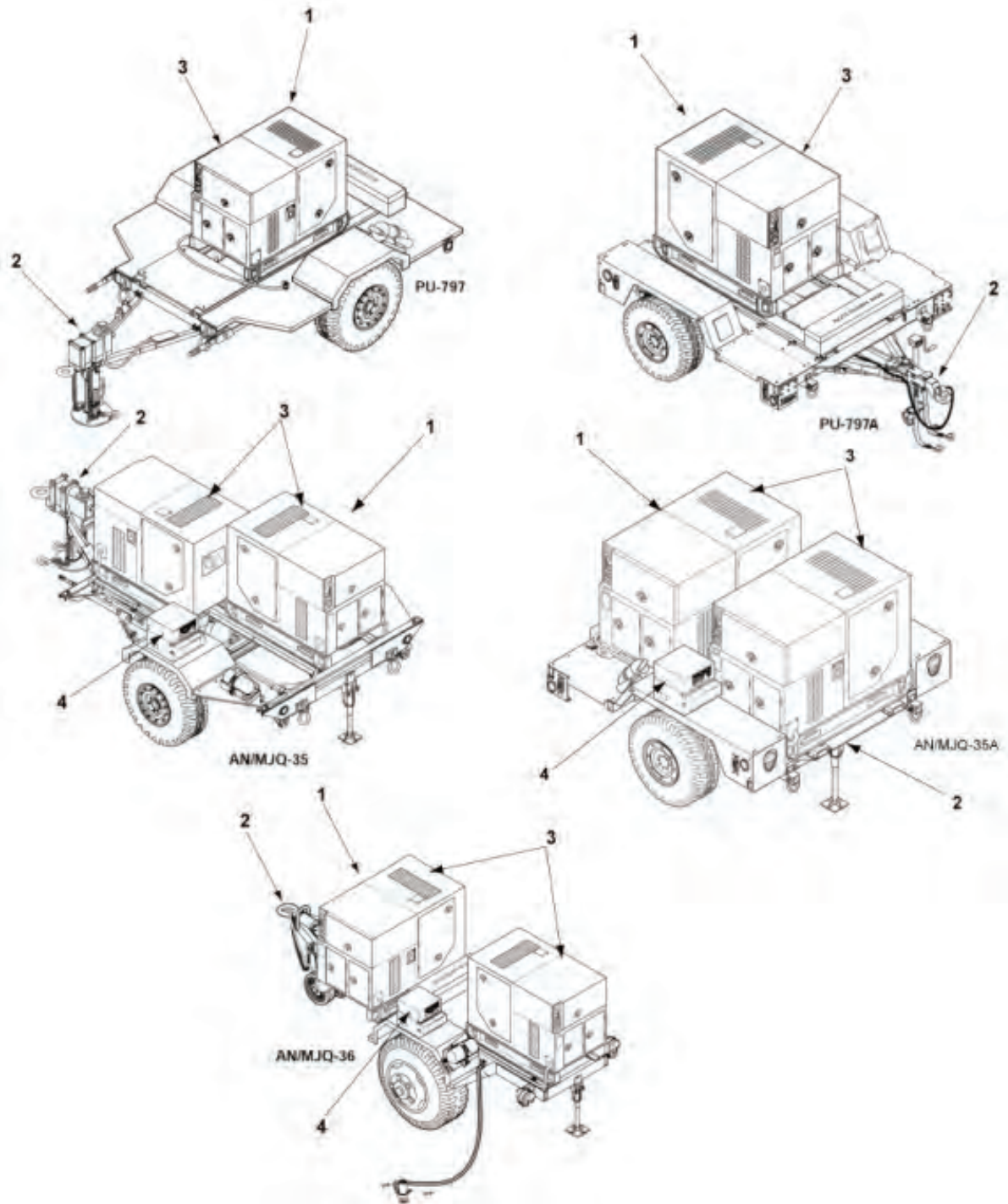


Table 1. Components of End Item List.

(1) Illus Number	(2) National Stock Number (NSN)	(3) Description, Part Number / (CAGEC)	(4) Usable On Code	(5) U/I	(6) Qty Rqr
1	6115-01-332-0741	PU-797		EA	1
2	6115-01-392-0295	1 Ton Trailer M116A3		EA	1
3	6115-01-274-7387	Generator, 5 kW 60 Hz MEP802A		EA	1
1	6115-01-413-3820	PU-797A		EA	1
2	2330-01-387-5424	1 Ton Trailer, LTT		EA	1
3	6115-01-274-7387	Generator, 5 kW 60 Hz MEP802A		EA	1
1	6115-01-313-4216	PP-AN/MJQ-35		EA	1
2	6115-01-464-0225	1 Ton Trailer M116A3		EA	1
3	6115-01-274-7387	Generator, 5 kW 60 Hz MEP802A		EA	2
4	5930-01-447-6646	Switch Box P/N 13230E6535		EA	1
1	6115-01-414-9697	PP-AN/MJQ-35A		EA	1
2	6115-01-464-0225	1 Ton Trailer, LTT		EA	1
3	6115-01-274-2387	Generator, 5 kW 60 Hz MEP802A		EA	2
4	5930-01-447-6646	Switch Box P/N 13230E6535		EA	1
1	6115-01-313-4215	PP-AN/MJQ-36		EA	1
2	2330-00-141-8052	1.5 Ton Trailer M103A3		EA	1
3	6115-01-274-2387	Generator, 5 kW 60 Hz MEP802A		EA	2
4	5930-01-447-6646	Switch Box P/N 13230E6535		EA	1

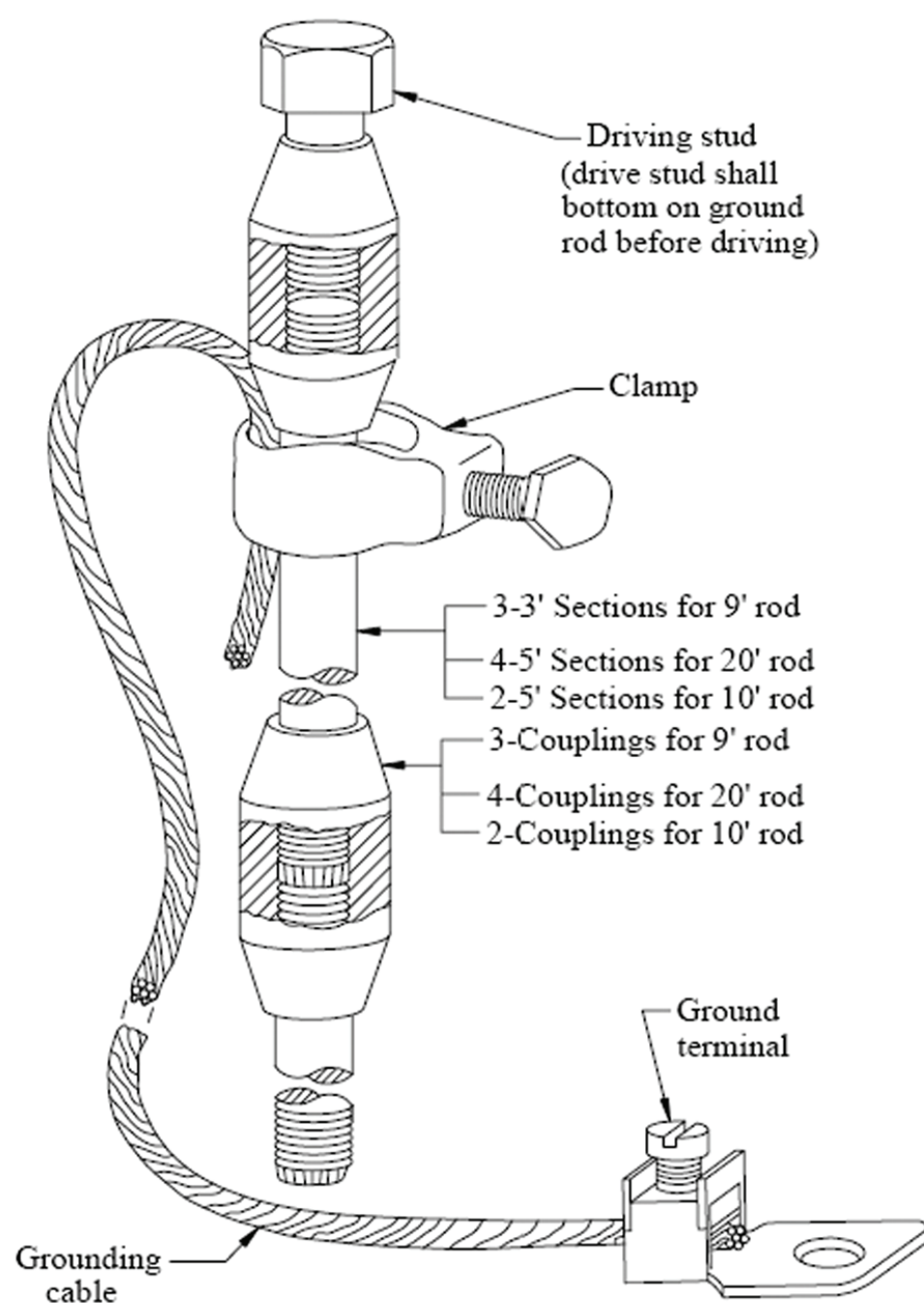


Figure 1. Item 7, Basic Issue Items, Rods, Ground (with attachments), Sectional 9 Ft.

***TM 9-6115-659-13&P**

TECHNICAL MANUAL**OPERATOR AND FIELD MAINTENANCE MANUAL INCLUDING REPAIR PARTS
AND SPECIAL TOOLS LIST****FOR****POWER UNIT, DIESEL ENGINE DRIVEN, 1 TON TRAILER
MOUNTED, 5 kW, 50/60 Hz****PU-797****(NSN: 6115-01-332-0741) (EIC: N/A)****POWER UNIT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL
TRAILER MOUNTED, 5 kW, 50/60 Hz****PU-797A****(NSN: 6115-01-413-3820) (EIC: N/A)****POWER PLANT, DIESEL ENGINE DRIVEN, 1 TON TRAILER
MOUNTED, 5 kW, 50/60 Hz****AN/MJQ-35****(NSN: 6115-01-313-4216) (EIC: N/A)****POWER PLANT, DIESEL ENGINE DRIVEN, LIGHT TACTICAL
TRAILER MOUNTED, 5 kW, 50/60 Hz****AN/MJQ-35A****(NSN: 6115-01-414-9697) (EIC: N/A)****POWER PLANT, DIESEL ENGINE DRIVEN, 1 1/2 TON
TRAILER MOUNTED, 5 kW, 50/60 Hz,****AN/MJQ-36****(NSN: 6115-01-313-4215) (EIC: N/A)**

***SUPERSEDURE NOTICE** - This manual supersedes TM 9-6115-659-13&P dated 01 June 2007. Date of issue for the revised manual is: 01 January 2010.

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15 JANUARY 2010**

Figure 2. Item 9, Basic Issue Items, TM 9-6115-659-13&P.

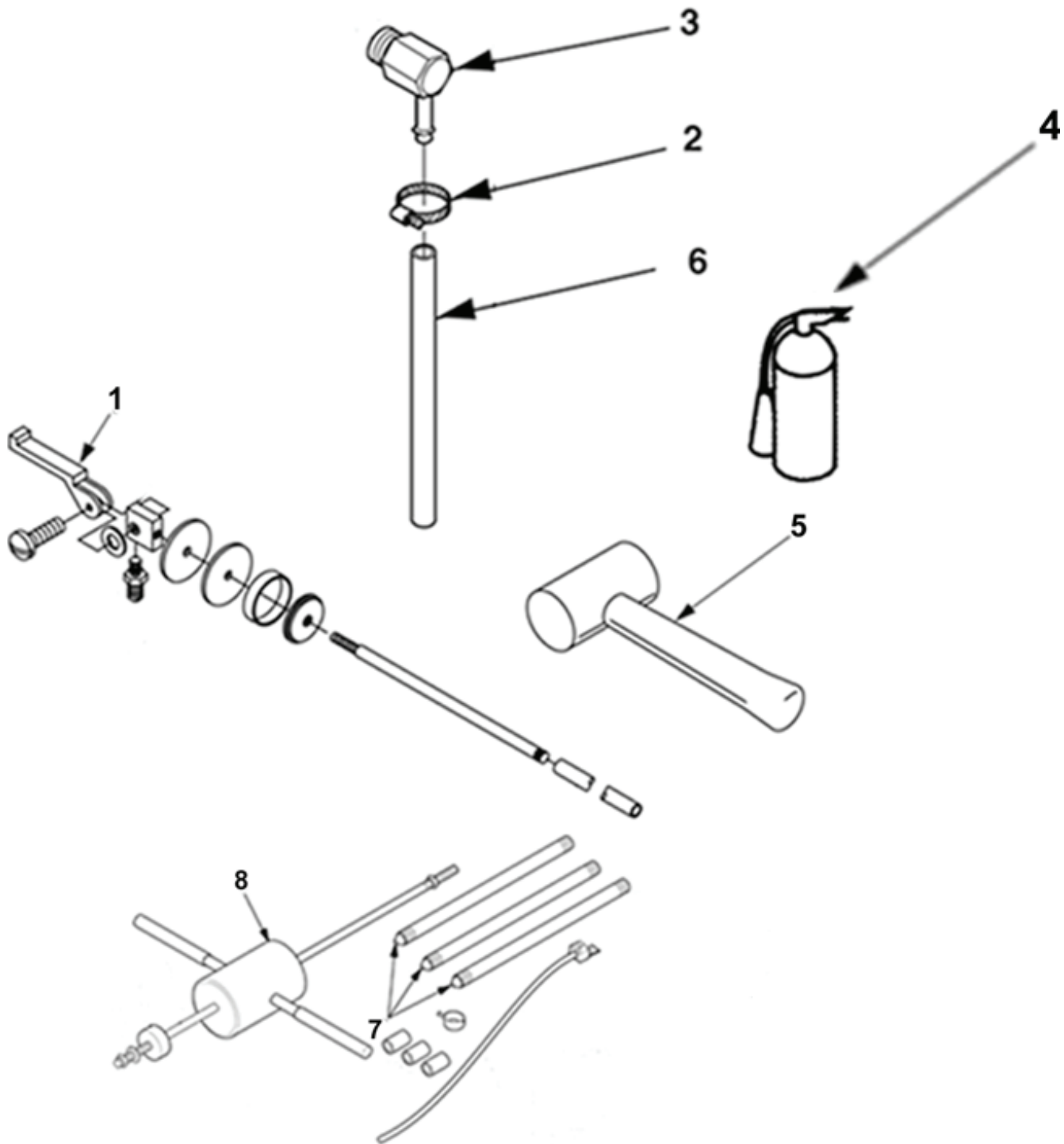


Figure 3. Items 1, 2, 3, 4, 5, 6, and 8, Basic Issue Items, TM 9-6115-659-13&P.

Table 2. Basic Issue Items List.

(1) Illus Number	(2) National Stock Number (NSN)	(3) Description, Part Number / (CAGEC)	(4) Usable On Code	(5) U/I	(6) Qty Rqr
1	5342-00-066-1235	Adapter Assy, Fuel Drum 13211E7541 (06076)		EA	1
2	4730-01-470-2409	Clamp, Hose, Low Pressure, Type F, Size 12, SAE J1508 88-20561-2 (30554)		EA	1
3	4730-00-809-9703	Elbow, Pipe to Hose 13236380-4 (97403)		EA	1
4	4210-01-361-6921	Extinguisher, Fire, Carbon Dioxide 322 (54905)		EA	1
5	5120-00-251-4489	Hammer, Hand, Engineers, Double, 8# A-A-1293 (58536)		EA	1
6	4720-01-386-4210	Hose, Nonmetallic 160-12-24 (98441)		EA	1
7	5975-00-878-3791	Rods, Ground (w/attachments), Sectional 9 Ft. A-A-55804-III-B (58536)		EA	1
8	5120-01-013-1676	Slide Hammer, Ground Rod 13226E7741 (97403)		EA	1
9		TM 9-6115-659-13&P		EA	1

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE**5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN****ADDITIONAL AUTHORIZATION LIST (AAL)****ADDITIONAL AUTHORIZATION LIST (AAL)****INTRODUCTION****Scope**

This work package lists additional items you are authorized for the support of the Power Unit/Power Plant.

General

This list identifies items that do not have to accompany the Power Unit/Power Plant and that do not have to be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

Explanation of Entries in the AAL

Column (1) National Stock Number (NSN). Identifies the stock number of the item to be used for requisitioning purposes.

Column (2) Description, Part Number/(CAGEC). Identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (3) Usable On Code. When applicable, gives you a code if the item you need is not the same for different models of equipment.

Code	Used on
YJD	Model AN/MJQ-35
YJB	Model AN/MJQ-36
YFS	Model PU-797A
YJC	Model AN/MJQ-35A
EVR	Model PU-797

NOTE

All five "usable on" codes listed above apply to all illustrations on the AAL list.

Column (4) U/I. Unit of Issue (U/I) indicates the physical measurement or count of the item as issued per the National Stock Number shown in column (1).

Column (5) Qty Recm. Indicates the quantity recommended.

Table 1. Additional Authorization List.

(1) National Stock Number (NSN)	(2) Description, Part Number / (CAGEC)	(3) Usable On Code	(4) U/I	(5) Qty Recm
5342-00-066-1235	ADAPTER, CONTAINER 13211E7541 (97403)		EA	1
5999-00-186-3912	CLAMP		EA	1
5975-00-794-2523	COUPLINGS, (THREE IN SET)		EA	1
5975-00-924-9927	DRIVE/HEAD STUD		EA	1
4210-00-361-6921	EXTINGUISHER, FIRE, CARBON DIOXIDE, 5 LB 322 (54905)		EA	1
7240-00-177-6154	FLEXIBLE SPOUT		EA	1
7240-01-337-5269	FUEL CAN		EA	1
5940-00-271-9504	GROUND TERMINAL LUG		EA	1
5120-01-013-1676	HAMMER, SLIDE 13226E7741 (97403)		EA	1
5310-01-365-5788	NUT, SELF LOCKING HEXAGON, PREVAILING TORQUE 88-21930-2 (30554)		EA	1
4710-00-185-6948	PIPE 13211E7543 (97403)		EA	1
4710-00-597-8731	PIPE, EXTENSION 1311E7542 (97403)		EA	1
5975-00-878-3791	RODS, GROUND (WITH ATTACHMENTS), SECTIONAL 9 FT AA55804-III-B (58536)		EA	1
5310-01-477-1264	WASHER, FLAT 88-20564-15 (30554)		EA	1
6145-00-395-8799	WIRE, ELECTRICAL, NO. 6 AWG, 7 STRANDS, CLASS B, TEMPER, 6FT LONG ASTM B8		EA	1
5100-00-494-1911	WRENCH, PLIERS, CURVED JAW GGG-W-00649, TYPE 1, CLASS2, STYLE B (81348)		EA	2

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

EXPENDABLE SUPPLIES AND DURABLE ITEMS LIST

EXPENDABLE AND DURABLE ITEMS LIST

Scope

This work package lists expendable and durable items that you will need to operate and maintain the Power Plant/Power Unit. This list is for information only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V Repair Parts, and Heraldic Items), CTA 50-909, Field and Garrison Furnishings and Equipment or CTA 8-100, Army Medical Department Expendable/Durable Items.

Explanation of Columns in the Expendable/Durable Items List

Column (1) Item No. This number is assigned to the entry in the list and is referenced in the narrative instructions to identify the item (e.g., Use brake fluid (WP 0098, item 5)).

Column (2) Level. This column identifies the lowest level of maintenance that requires the listed item (include as applicable: C = Crew, O = AMC, F = Maintainer or ASB, H = Below Depot or TASMG, D = Depot).

Column (3) National Stock Number (NSN). This is the NSN assigned to the item which you can use to requisition it.

Column (4) Item Name, Description, Part Number/(CAGEC). This column provides the other information you need to identify the item. The last line below the description is the part number and the Commercial and Government Entity Code (CAGEC) (in parentheses).

Column (5) U/I. Unit of Issue (U/I) code shows the physical measurement or count of an item, such as gallon, dozen, gross, etc.

Table 1. Expendable and Durable Items List.

(1) Item No.	(2) Level	(3) National Stock Number (NSN)	(4) Item Name, Description, Part Number / (CAGEC)	(5) U/I
1	F	8040-00-664-4318	Adhesive 9995460 (18876)	EA
2	F	6850-01-331-3349	Cleaning compound solvent P-D-680 (81348)	
3	F	6850-01-331-3350	Cleaning compound solvent P-D-680 (81348)	
4	F	9150-00-190-0904	Grease Automotive/artillery GAA MIL-G-10924 (81349)	
5	F	9150-00-189-6727	Oil Lubrication OE/HDO-10 MIL-D-2104 (81349)	
6	F		Solder Sn60Pb40 (81348)	

Table 1. Expendable and Durable Items List. - Continued

(1) Item No.	(2) Level	(3) National Stock Number (NSN)	(4) Item Name, Description, Part Number / (CAGEC)	(5) U/I
F	F	7920-00-140-0869	Rag, Wiping 8722-0088 (03950)	BOX

END OF WORK PACKAGE

OPERATOR AND FIELD MAINTENANCE

5 kW 50/60 Hz POWER PLANT/POWER UNIT, DIESEL ENGINE DRIVEN

MANDATORY REPLACEMENT PARTS LIST

Scope

This work package lists all parts used on the light tactical trailer that must be discarded when removed during maintenance and installed new.

General

All mandatory replacement parts are listed by Item Number, Nomenclature, and Part Number.

Table 1. Mandatory Replacement Parts List.

Item No.	Part Number / (CAGEC)	National Stock Number (NSN)	Nomenclature	Qty
1	MS35338-140	5310-00-934-9765	WASHER, LOCK (5/16)	
2	MS35338-141	5310-00-984-7042	WASHER, LOCK (3/8)	
3	AD45ABS	5320-00-052-1972	RIVET	
4	MS35338-158	5310-00-883-9417	WASHER, LOCK (1/4)	
5	MS35338-143	5310-00-933-8778	WASHER, LOCK (1/2)	
6	MGLP-R8-10	5315-01-466-4174	RIVET, STEEL SHANK (1/4 .350-.625)	
7	MGLP-R8-6	5320-01-215-9148	RIVET, STEEL SHANK (1/4 .080-.375)	
8	BOM-R8-8	5320-00-483-0558	RIVET, BLIND (1/4 .470-.531)	
9	BOM-R8-10	5320-01-140-149	RIVET, BLIND (1/4 .595-.656)	
10	MGL100-R6-9		RIVET, BLIND (3/16 .305-.500)	
11	BOM-R12-8		RIVET, BLIND (3/8 .438-.562)	
12	MS-3367-1-0	5975-00-984-6582	STRAP, TIEDOWN, ELECTRICAL COMPONENT	
13	MS35338-141	5310-00-984-7042	WASHER, LOCK (3/8)	

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PUBLICATION/FORM NUMBER				DATE		TITLE		
PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION
PART III - REMARKS (Any general remarks, recommendations, or suggestions for improvement of publications and blank form for additional information may be used if more space is needed.)								
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RECOMMENDED CHANGES TO PUBLICATIONS AND BLANK FORMS For use of this form, see AR 25-30; the proponent agency is OAASA						Use Part II (reverse) for Repair Parts and Special Tool Lists (RPSTL) and Supply Catalogs/Supply Manuals (SC/SM).	DATE
TO: (Forward to proponent of publication or form) (Include ZIP Code)						FROM: (Activity and location) (Include ZIP Code)	
PART I - ALL PUBLICATIONS (EXCEPT RPSTL AND SC/SM) AND BLANK FORMS							
PUBLICATION/FORM NUMBER						DATE	TITLE
ITEM	PAGE	PARA-GRAPH	LINE	FIGURE NO.	TABLE	RECOMMENDED CHANGES AND REASON	
TYPED NAME, GRADE OR TITLE				TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION		SIGNATURE	

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PART II- REPAIR PARTS AND SPECIAL TOOL LISTS AND SUPPLY CATALOGS/SUPPLY MANUALS								
PUBLICATION/FORM NUMBER				DATE		TITLE		
PAGE NO.	COLM NO.	LINE NO.	NATIONAL STOCK NUMBER	REFERENCE NO.	FIGURE NO.	ITEM NO.	TOTAL NO. OF MAJOR ITEMS SUPPORTED	RECOMMENDED ACTION
PART III - REMARKS <i>(Any general remarks or recommendations, or suggestions for improvement of publications and blank forms. Additional blank sheets may be used if more space is needed.)</i>								
TYPED NAME, GRADE OR TITLE			TELEPHONE EXCHANGE/AUTOVON, PLUS EXTENSION			SIGNATURE		

TM 9-6115-659-13&P

By Order of the Secretary of the Army:

Official:



JOYCE E. MORROW
*Administrative Assistant to the
Secretary of the Army*
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*General, United States Army
Chief of Staff*

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IER PLANT WIRING DIAGRAM

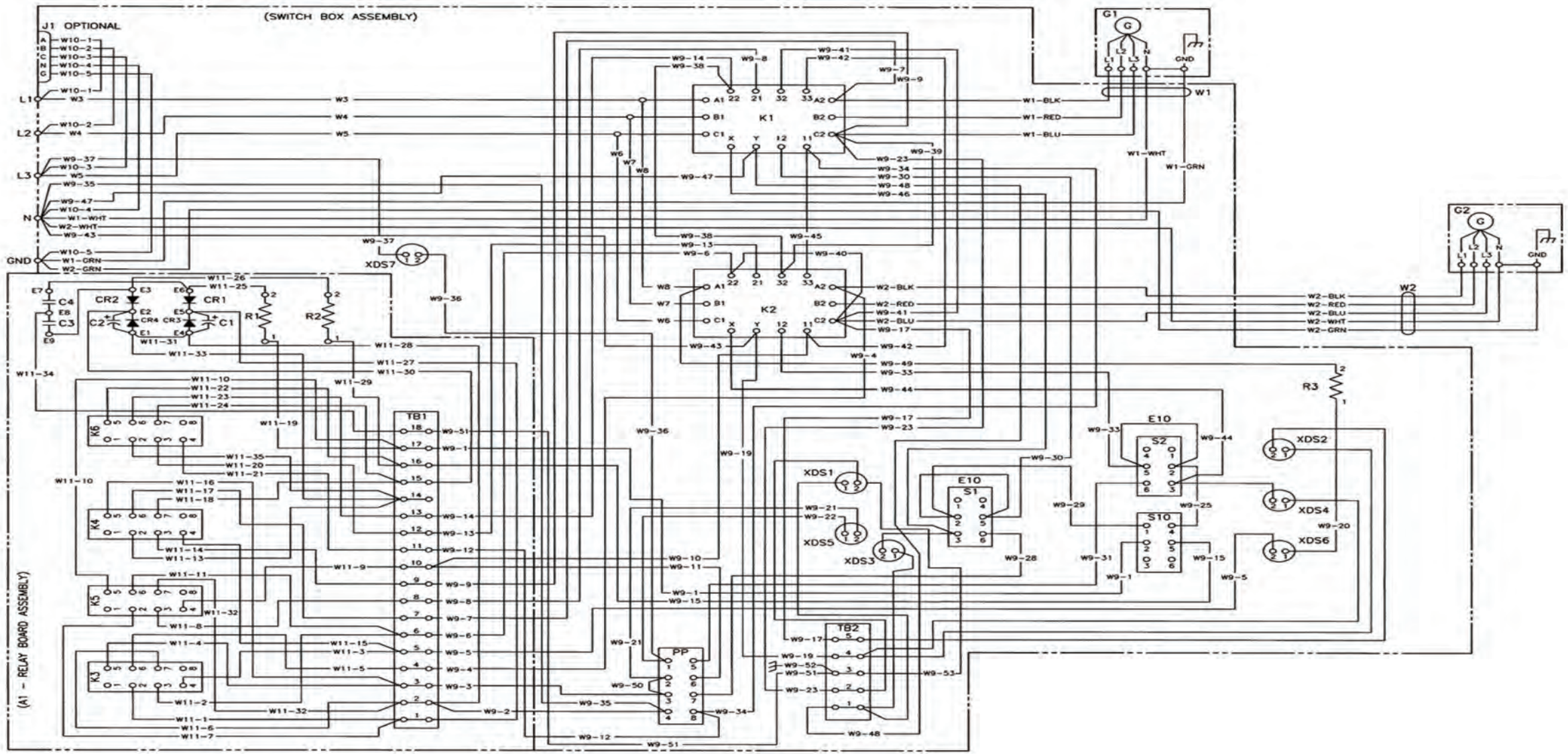


FIGURE FO-2. POWER PLANT WIRING DIAGRAM COMPONENT REFERENCE LIST

COMPONENT REFERENCE LIST		
REF DES	PART NO.	DESCRIPTION
XDS1-XDS4	13229E5764-2	LIGHT AND WIRE
XDS5-XDS7	13230E6739	LAMP HOLDER
	(HOUSING) AND 13230E6740 (LENS)	
DS5-DS7	6S6DC (120) A-A-50452	LAMP, INCANDESCENT
E1-E9	13230E6394	TERMINAL, STUD
E10	30554-69-651-1	BUS CONNECTOR
K1, K2	13229E5639	CONTACTOR
K3, K4 K5, K6	13230E6635	RELAY, DPDT
PP	13229E5653	RELAY, PERMISSIVE, PARALLELING
S1, S2	13230E6378-13	SWITCH, TOGGLE
S10	13230E6378-8	SWITCH, TOGGLE
G1, G2	SEE TABULATION	SEE TABULATION
N, L1, L2, L3, GND	30554-69-692-1	TERMINAL, POST, SERVICE AND GROUND
J1	SEE TABULATION	CONNECTOR, RECEPTACLE
R1, R2	13230E6746-1	RESISTOR
R3	13230E6746-2	RESISTOR
CR1, CR2 CR3, CR4	13230E6277	DIODE
XK3-XK6	13222E9686	SOCKET, RELAY
W1	SEE TABULATION	CABLE ASSEMBLY
W2	SEE TABULATION	CABLE ASSEMBLY
W3	13229E5828-1	LEAD, ELECTRICAL
W4	13229E5828-2	LEAD, ELECTRICAL
W5	13229E5828-3	LEAD, ELECTRICAL
W6	13229E5828-4	LEAD, ELECTRICAL
W7	13229E5828-5	LEAD, ELECTRICAL
W8	13229E5828-6	LEAD, ELECTRICAL
W9	13229E5831	HARNESS ASSEMBLY, SWITCH BOX
W10	SEE TABULATION	HARNESS ASSEMBLY, OUTPUT CONNECTOR
W11	13229E5829	HARNESS ASSEMBLY, RELAY BOARD
A1	13229E5830	RELAY BOARD ASSEMBLY
TB1	13230E6377-6	TERMINAL BOARD
TB2	13230E6377-4	TERMINAL BOARD
C1, C2	13230E6745-1	CAPACITOR
C3, C4	13229E5648	CAPACITOR

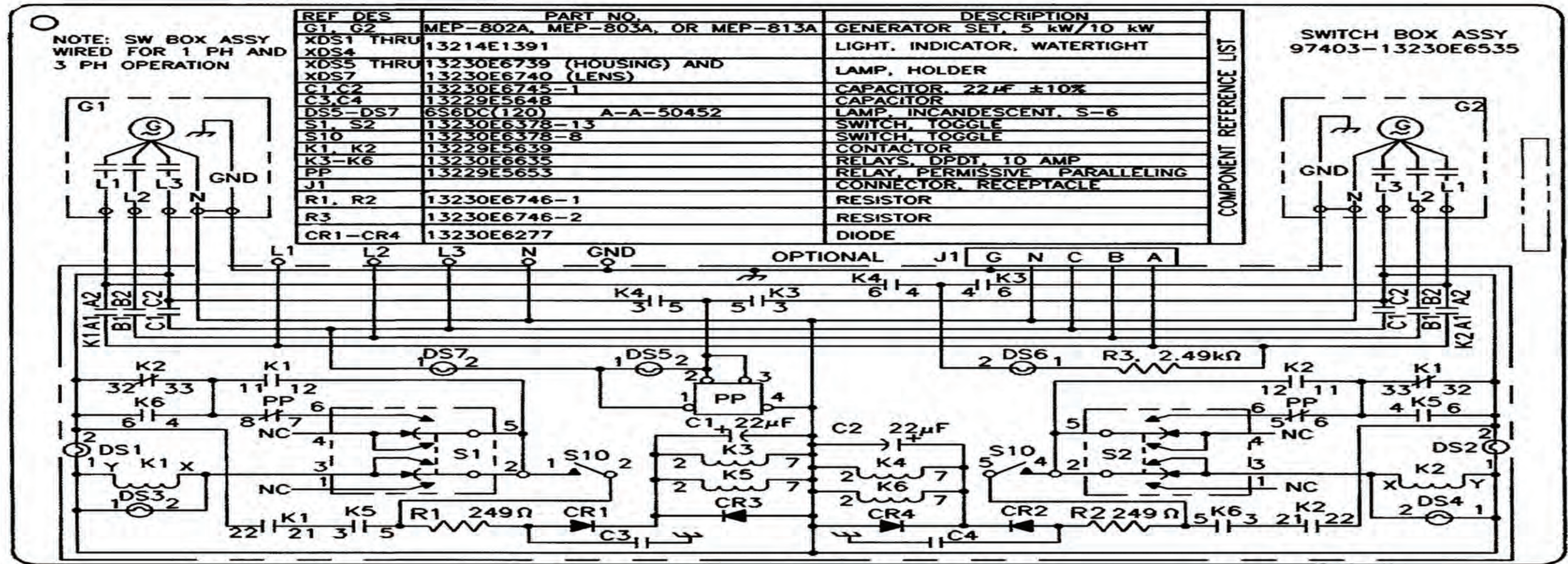


FIGURE FO-3. POWER PLANT SCHEMATIC

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeter = 0.01 Meters = 0.3937 inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 inches
 1 kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 100 Grams = 2.2 lb. 1 Cu. Meter = 1,000,000
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Millimeter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Millimeters = 32.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeter = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Inches
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Centimeters = 35.31 Cu. Feet

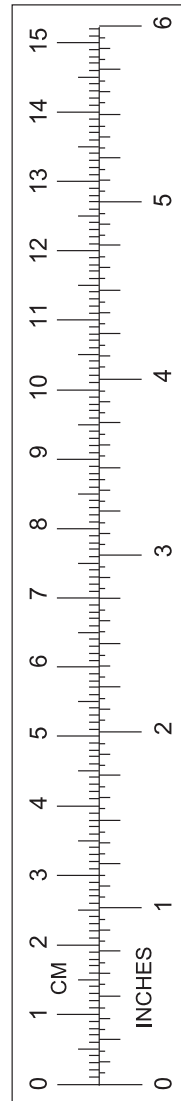
TEMPERATURE

$5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5 ^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches.....	Centimeters.....	2.540
Feet.....	Meters.....	0.305
Yards.....	Meters.....	0.914
Miles.....	Kilometers.....	1.609
Square Inches.....	Square Centimeters.....	6.451
Square Feet.....	Square Meters.....	0.093
Square Yards.....	Square Meters.....	0.836
Square Miles.....	Square Kilometers.....	2.590
Acres.....	Square Hectometers.....	0.405
Cubic Feet.....	Cubic Meters.....	0.028
Cubic Yards.....	Cubic Meters.....	0.765
Fluid Ounces.....	Milliliters.....	29.573
Pints.....	Liters.....	0.473
Quarts.....	Liters.....	0.946
Gallons.....	Liters.....	3.785
Ounces.....	Grams.....	28.349
Pounds.....	Kilograms.....	0.454
Short Tons.....	Metric Tons.....	0.907
Pound-Feet.....	Newton-Meters.....	1.356
Pounds per Square Inch.....	Kilo pascals.....	6.895
Miles per Gallon.....	Kilometers per Liter.....	0.425
Miles per Hour.....	Kilometers per Hour.....	1.609

TO CHANGE	TO	D I V I D E BY
Centimeters.....	Inches.....	2.540
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Square Centimeters.....	Square Inches.....	6.451
Square Meters.....	Square Feet.....	0.093
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Kilometers per Liter.....	Miles per Gallon.....	0.425
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